



**Institutionalisation of
Digitally-Enabled Service Transformation
in the UK Public Sector:
An Exploratory Study on the
Roles of the Actors and Structures**

A thesis submitted for the degree of Doctor of Philosophy

By

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Abstract

The successful institutionalisation of digitally-enabled service transformation (DEST) in the UK public sector has always been a challenge for the government. Associated with technology and managerial impediments, the derailment of several DEST projects in recent years has attracted much scholarly debate. Nonetheless, overt emphasis on the antecedents and effects of DEST institutionalisation has concealed the real events underpinning the transformation process, especially the ‘social’ interactions between the institutional actors and structures, as well as their role in the DEST institutionalisation process. Hence, this research aims to explore the roles of the actors and structures in DEST institutionalisation as working practice in public institutions. To do so, this research develops a conceptual framework grounded on Institutional Theory and Structuration Theory concepts, derived from the analysis of four past DEST cases in the UK. The framework is used in a qualitative enquiry that explores the well-publicised Universal Credit transformation case through interviews, focus groups and review of documentary and parliamentary-select-committee-media evidence. The findings offer insights into the deinstitutionalisation and structuration processes in the study of DEST institutionalisation to better understand the implementation of change in public institutions. This study concludes that actors and structures play important roles in structuring the DEST institutionalisation process as working practice in public institutions. Actors could manipulate structures of meaning, power and norms to promote desired actions in shaping practices that support DEST institutionalisation.

Keywords: Digitally-Enabled Service Transformation, Digital Transformation, Public Sector, Institutional Theory, Structuration Theory.

Declarations

I hereby declare that this thesis is a presentation of my original work. Wherever contributions of others are involved, every effort is made to indicate this clearly, with due reference to the literature and acknowledgement of collaborative research and discussions.

To the best of my knowledge, no portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification to any university, nor institute of learning.

The following publications have been produced as direct or indirect results of the research discussed in this thesis.

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“Life is lived forward but understood backwards” - Weick (2002)

Dedication

This thesis is dedicated to the loving memory of my late grandfather (Gul Muhammad), my late grandmother (Mek Wok) and my late father (Mohamed Omar) who always desired and prayed for my success but did not live to see this great accomplishment - May God grants them eternal peace. This dedication also goes to my beloved mother (Nor Himah Mahmood) who deserved this achievement even more than me; to my loving husband (Shazrul Zulkifli) without whom, reaching for this dream would have been a solitary struggle; and finally to my children (Iman, Mikhail and Safaa) who always fill my life with hope and rejuvenate me during the hard time.

Chapter 1

CHAPTER 1 : INTRODUCTION

1.1 Research Background

The term institution is often used interchangeably with the term organisation. Nonetheless, they both imply different meanings. While the term organisation explicitly refers to an entity comprising multiple people with a collective goal and is linked to an external environment, the term "institution" refers to the recurring, stable and valued behaviours (Scott, 2008). Institution defines shared conventions, which classified the social actors, as well as their relationships and activities (Barley and Tolbert, 1997). As a social interaction mechanism, institution is manifested in both formal and informal ways. Unlike formal institutions, informal institutions encompass subjective experience of meaningful social enactments. Therefore, the formal institutions are explicitly set forth by a relevant authority and informal institutions are generally unwritten societal rules, norms, and traditions.

Public organisations are the example of formally manifested institutions. Meanwhile, social orders such as culture, habits and norms are the manifestation of institution informally. Barley and Tolbert (1997) argue that the choice and actions of individuals or collective organisational members could deliberately modify, or even eliminate institution. Nonetheless, institution also constraints option of individuals or collectives organisational members, which explains the emergence of homogeneous behaviours among the actors of similar institution such as public sector. Although public institution can be deliberately created, its institutional development and function generally regarded as an instance of emergence. This is due to the reason that institutions arise, develop and function in a pattern of self-organising social interactions, beyond conscious intentions of the institutional actors. Based on these explanations, this research labelled the UK public sector, in general, as an institution, while the Department for Work and Pension as an organisation that is internal to the institution.

While the term institution refers to commonly shared convention, the term “institutionalisation” represents the process of embedding a particular practices, rules or norms within a social system, such as a public organisation.

This research explores the institutionalisation of Universal Credit Programme as a new benefits system in the UK, involving both perspectives of formal and informal institution changes. In this context, the formal institution refers to the organisational and functional changes in the Department for Work and Pension, which is the main responsible organisation for this transformation. On the other hands, the informal institution refers to the changes of norms-related practices caused by the transformation.

A public institution is embedded in an environment that is highly susceptible to change. This is due to its function that requires it to engage in continuous interactions with the surrounding actors, especially the citizens (Lamb, 1987). As a consequence, public organisations in general are often subjected to transformations with regard to its operation and service delivery (Bertot et al., 2016). These transformations are characterised by gradual changes in the public management styles (Osmani, 2015).

The concept of New Public Management (NPM), that was introduced more than five decades ago, originated after the government was enticed by the private sector practices (Osborne, 2006). Hence, the reinvention of public institutions’ practices in such an era were oriented towards performance efficiency (Tassabehji et al., 2016a). Nonetheless, the ‘resilient entrepreneurship’ culture required for NPM to succeed and achieve its objective to reinvent the public institution was impeded by the very nature of the public institution (Bertot et al., 2016). Unlike private institutions, the public institution is autocratic, rigid, and highly exposed to political influence (Lamb, 1987). Besides, the public institutions’ functions are constituted in certain regulatory frameworks and require particular policies to be enacted (Gutmann and Thompson, 2004). These had constrained the reinvention of many practices of

the public institution and led to the status quo that limits its performance in delivering services to the public.

The failure of NPM in helping to increase the public sector's performance led to the introduction of Digital Era Government (DEG), where digital innovation grew exponentially in supporting public service operations and delivery (Osmani, 2015). DEG is underpinned by a theme that is critical to its concept, i.e. 'the adaptation of the public sector to completely embrace and imbed electronic delivery at the heart of the government business model' (Margetts & Dunleavy, 2013). This enabled the 'business process re-engineering approach' to flourish in the public institution setup – heralding digitally enabled solutions to public service issues (Weerakkody, Janssen, & Dwivedi, 2011). Hence, the era witnessed exponential growth in digitally enabled service transformation (DEST) projects/programs across the public sector (Osmani et al., 2012).

The era of Digital Darwinism then emerges in the midst of the DEG era, where organisations are demanded to compete for an unforeseeable future (Solis, 2016a) due to the fast pace of technological change and social evolution, which impacts on society in many aspects (Solis, 2016b). Consequently, organisations, including the public sector, have multiplied the DEST efforts in order to change fundamental practices in the public organisations (Omar et al., 2017a).

The definition for DEST in this research was coined from the definition of information system led business process re-engineering (BPR) that was introduced by Hammer (1993), since both shares a similar principle – i.e. the radical transformation of the business processes in uplifting organisational performance. Meanwhile, the term business process here makes an implicit reference to 'a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer' (Hammer and Champy, 1993). This explanation bears a generic resemblance to the description of the UK legacy-benefit-system

process that was transformed with the introduction of Universal Credit System, given in the case study chapter (i.e. Chapter 6). The emphasis in this research is on use of information and communication technology (ICT) to transform the organisational or business processes. Therefore, in the context of this study, DEST is defined as ‘the use of ICT to radically change the existing public services, to achieve dramatic improvement in critical contemporary measure of performance, such as cost, quality, service and speed’ (Omar et al., 2016). The term radical was used to represent the profound changes on various organisational elements involving people and practices, such as skills, organisation structure, process (of the benefit payment), category of the benefit recipients and payment procedures (i.e. integrated data and real-time payment). On the other hand, the term ‘large scale government project’ refers to projects involving substantial financial input from the taxpayers and attracts serious attention or interest, as it affects the community and public budget (Capka, 2004). For simplicity, this term will be used interchangeably with “project” or “programme” in this thesis.

Many agree that information and communications technology (ICT) has a huge potential to enable national development. Nonetheless, Sein and Harindranath (2004) argue that the monolithic and homogeneous conceptualisation of ICT has led to the ambiguous findings and diverse opinions on the role of ICT in national development. Thus, they urge a finer examination on the ICT artefact, by proposing its conceptualisation in many facets, perceptions, and in its societal implication. Based on one of the proposed conceptualisations (i.e. tool view), this research conceives ICT as a tool of DEST. This view treats ICT as an engineered artefact and a technical means used to achieve the desired service transformation objective. Thus, the use of ICT in this respect is to substitute manual processes, which at the same time alters social interactions between the actors involved in the process. In the national

development context, this conceptualisation depicts ICT as a support for managerial, developmental and processual activities.

DEST is viewed as a solution to common issues within the public administrative spheres, such as providing savings within the operational budget and improving service efficiency (El-Haddadeh et al., 2013; Luna-Reyes and Gil-Garcia 2011; Osmani et al., 2012; Kamal et al., 2011) and transforming a wide range of cognitive, behavioural and socio-cultural activities (Dunleavy et al., 2005). These issues were recognised as the barriers to efficient and effective public service delivery, besides affecting the quality of the services (House of Commons, 2006). Furthermore, the digitalisation of services enables the government to diminish physical organisational borders and helps to establish a wider span of control over functions and data through the adoption of a centralised-system approach (Weerakkody et al., 2015; Markaki et al. 2010; Janssen and Klievink 2009). The government believes that DEST can enhance public value through people and community empowerment and broaden the government's reach-out to the citizens and other stakeholders that would foster closer and richer engagement between them (Cabinet Office, 2012; West 2008). In addition, DEST could promote public participation in the government's decision-making process, which is the key determinant of the modern participatory governance model (El-Haddadeh et al., 2013). An example to this is the 'YouChoose' programme, which was an online channel by Redbridge Council, UK that empowered citizens to set budget priorities and the 'Citizens' Juries' programme, that was conducted in the private sector to provide a platform for citizens to contribute towards the UK Spending Review in 2010 (Institute for Government 2015).

Despite this trend, records also show that many of the large-scale DEST projects in the public sector have failed to achieve the desired objectives (Juan and Weare 2010; Damanpour and Schneider 2009; Kwon, Berry, and Feiock 2009; Franzel 2008; Tolbert, Mossberger, and

McNeal 2008; Albury 2005; Frederickson et al. 2004; Bradach 2003). In the UK public sector context, examples include the e-Borders project, the National Program for Information Technology (NPfIT), the Digital Media Initiative by British Broadcasting Corporation (BBC) and the Common Agricultural Policy Delivery Programme (CAPD) (Currie and Guah, 2007; Omar et al., 2017; ParliamentUK, 2013). This phenomenon has attracted much media and scholarly attention. Although much debate was generated to understand this situation, the majority of the studies focused on the technological aspects (i.e. features and attributes) and strategic view (i.e. governance and process) (Omar and Osmani, 2015a). It was suggested that such derailments were caused by various factors, especially the evolving stakeholders' demands, fast-cycle of technological movement, and ever-emerging capability requirements (Sivarajah, Irani, & Weerakkody, 2015; Waller & Weerakkody, 2016). In certain circumstances, DEST implementation can be impeded by the conflicting logics of the institutional actors, contended institutional structures, or norms differences (Deloitte, 2015). Besides wasting public resources that otherwise could be spent on other public needs, these failures had impeded the potential of delivering high quality public services to the citizens, thus affecting their quality of life. In this regard, the issue of DEST institutionalization deems as critical and requires improvement. Based on the untapped perspective, it was suggested that DEST implementation should be treated as the social process of the interplay between the actors and institutional conventions, rather than a technical-dominated initiative (Currie, 2009).

Although public institutions' uniqueness and complexity have been acknowledged (i.e. the business process, stakeholders, structures), arguments against such a perspective remain scarce in the majority of the DEST literature. Early institutionalists, such as Barley and Tolbert (1997), attempted to highlight this issue against a general context of institution, by claiming that the interactions between various organisational elements shape the practice

within any institution. The article also discussed issues such as stakeholders' roles, actions, structure formations, factors driving actions, and pressures triggering organisational change, before suggesting that the interplay between stakeholders' actions and the organisational structures underpin the institutionalisation process of the newly introduced structure.

This perspective was partially shared in studies of DEST institutionalisation by several scholars (i.e. Bunduchi et al. 2015, Currie 2012; Currie and Guah 2007; Jun and Weare 2010; Frumkin and Galaskiewicz 2004). However, these studies fail to provide a detailed explanation about how the interplays happen, thus deluding insight on how DEST is institutionalised. In a different stream, the public policy scholars recognised the significant roles of the stakeholders in shaping the organisational structures and outcomes of the policy instrument implementation (i.e. McBeath and Meezan 2009; Ingold and Leifeld 2014; Grissom 2012; Villadsen 2011). However, such arguments were not debated against the backdrop of DEST, thus again deluded understanding about the DEST institutionalisation process in the PS context. The scenario constituted a significant research gap within the DEST literature, thereby motivating this research. A deeper understanding of the DEST institutionalisation process would enable the identification of its associated challenges and complexities, as well as the negative outcomes of the process that impede the DEST implementation in PS. There are also calls for further investigation of this phenomenon (Bannister and Connolly, 2015, 2014; Baptista, 2009; Baptista et al., 2010; Barley and Tolbert, 1997; Currie, 2011; Heeks and Bailur, 2007; Omar et al., 2016a; Veenstra et al., 2011).

Given this context, this study will focus on the following research questions:

RQ1: What causes DEST to emerge in public institutions?

RQ2: What shapes DEST-led practices and their context?

RQ3: How does the process identified in (2) underpin the institutionalisation of DEST-led practices in public institutions?

With this premise, the following aim and objectives were defined for this research.

1.2 Aim and Objectives

The aim of this study is to explore and understand what shapes and underpins the roles of the actors and structures in the institutionalisation of digitally-enabled service transformation (DEST) as a working practice in public institutions. Conceptually, the attainment of this aim will elucidate the critical contributions of the institutional actors and structures in influencing the process of abandoning the highly-institutionalised practice(s) in an institution, before institutionalizing new practices that help to legitimize (the existence) of such institution.

The following objectives were set in order to achieve the research aim:

Objective 1: To investigate the contextual background and influencing factors in large-scale public sector DEST projects, by critically reviewing the existing literature.

Objective 2: To recognise how the factors identified in objective 1 evolve in the real world by conducting an analysis of past DEST cases in UK public institutions in order to reflect on the lessons and emerging themes.

Objective 3: Based on the outcome of objective 2, to identify the potential theoretical lens for exploring the emerging themes in the institutionalization process of DEST in the UK's public sector.

Objective 4: To interpret the research need and review appropriate research methodologies for formulating the methodological approach to be used in the study.

Objective 5: To use the approach identified in objective 4 to identify a case of DEST in the UK's public sector to conduct a qualitative empirical enquiry.

Objective 6: To use the conceptual framework identified in objective 3 to conduct a qualitative empirical enquiry in the context identified in objective 4 to explore and understand the roles of the actors and structures in the institutionalisation process.

Objective 7: To analyse the empirical data and propose a research framework.

Objective 8: To offer practical and theoretical implications regarding the key findings and provide recommendations for future research.

1.3 Research Methodology

This study explores the roles of the institutional actors and structures in the institutionalisation process of DEST in the public sector. In doing so, several steps of research protocol are followed. Determined by the dominant paradigm in the research area and the nature of the research problem, the interpretive approach was adopted as the research paradigm (Collis and Hussey, 2015; Mergel and Desouza, 2013; Currie, 2012; Baptista et.al, 2009,). As an epistemological orientation under the qualitative approach, the interpretivist paradigm allows the DEST phenomenon to be studied in its natural settings, thus increasing our understanding of the underlying events (Saunders *et al.*, 2016). Such a paradigm also allows social phenomena to be discovered through the researcher's own understanding, which can then inform other situations, rather than seeking generalisations or proposition testing (Saunders et al., 2016; Elbardan, 2013; Guba and Lincoln, 1994). Meanwhile, archival research, focus groups and case studies were used as the research strategies for the data collection process in this research.

In order to gain a general overview of the existing literature in the domain of PS DEST, a systematic literature review was conducted. The result of the analysis revealed a significant gap in the body of knowledge, which provides the avenue for this research. First, the focus on two themes of research (i.e. factors affecting and managerial issues that impedes DEST institutionalisation) were poorly understood and their influence on the processual accounts of DEST institutionalisation were not adequately researched. Second, the fact that majority of qualitative enquiry in the area was adopting cross-sectional case studies, thus, impeding the understanding of DEST institutionalisation, which is a social phenomenon that acquires and evolves over time and space – hence can be understood better through longitudinal study. To progress, the selection of a theoretical lens was conducted based on the results of the analysis of four major DEST projects in the UK’s public sector. A conceptual framework was then developed by utilising concepts drawn from the Institutional and Structuration theories. Following the inductive approach (Collis and Hussey, 2014), the framework was validated against the findings from the interviews, focus groups and analysis of archival materials, such as reports, videos and other publications that are available in the public domain. Such strategies were selected in order to allow the collection of a vast amount of institutionalisation evidence for the case under investigation. The collected data were analysed using Computer Aided Qualitative Data Analysis Software (CAQDAS), NVivo. The software facilitated the coding process and memo writing, as well as linking data to relevant evidence in different documents. Such conditions assisted the interpretation of the data (Flick, 2009), and thus enhanced the rigorous of the findings (Myers, 2009). As the result, an improvised DEST institutionalization framework was introduced as the research finding that contributes to both the body of knowledge and practice.

1.4 Thesis Outline

The remainder of the thesis is structured into five chapters as follows:

- *Chapter 2: Contextualising Digitally Enabled Service Transformation in the Public Sector*

This chapter presents a critical review of the existing literature related to the evolution of Digitally-Enabled Service Transformation (DEST) in the UK's public sector, the institutionalisation of DEST as well as the use of Institutional Theory and Structuration Theory in IS studies. The section provides evaluations of previous studies that have focused on the institutionalisation process of DEST in the public sector and the factors affecting the process. It concludes by identifying gaps in the literature that are addressed by the study.

- *Chapter 3: Lessons from the Past Digitally Enabled Service Transformations in the UK*

This chapter presents the narration of four large scales Digitally Enabled Service Transformation in the UK that were implemented in the past. The cases were used to reflect lessons that can be learned to better understand the processual accounts of DEST institutionalisation.

- *Chapter 4: Conceptual Framework*

Based on the lessons drawn in Chapter 4, this chapter presents the potential theories, before selecting and using them to form a conceptual lens for this research. The main principals and concepts of the selected theories (Institutional Theory and Structuration Theory) were discussed to provide a link between the framework and its theoretical roots.

- *Chapter 5: Research Methodology*

The chapter discuss the methodologies utilised in this research. The research philosophy and paradigm were identified and linked to the research design that determines the

selection of the research strategies for the data collection. The available strategies are discussed, before providing a justification of the selection made.

- *Chapter 6: Case Study*

This chapter provides narrations regarding the Universal Credit (UC) case, a Digitally-Enabled Service Transformation programme in the UK's public sector. It is the approach used for the qualitative inquiry in this research.

- *Chapter 7: Findings*

This chapter presents the findings from the multi-source evidence, i.e. interviews, focus groups, and archived data (e.g. videos, reports and policy documents). Using NVivo, this chapter will present the results of the analysis.

- *Chapter 8: Discussion*

This chapter provides a discussion of the findings highlighted in Chapter 6 in light of the initial conceptual framework proposed in Chapter 3. These discussions were used to develop a new framework to understand the roles of the actors and structures in institutionalising DEST in the public sector.

- *Chapter 9: Conclusion*

The final chapter will provide a summary of the thesis. This chapter also concludes the theoretical, practical and methodological contributions of the study, by revisiting the research aims and objectives, and stating how this study met them. The study limitations and recommendations are provided as a guide for future research avenues.

1.5 Summary

This chapter provides an overview of how Digitally-Enabled Service Transformation emerged and became a phenomenon in the UK's public sector during the last few decades. It is highlighted that public institutions are vulnerable to changes of their environment, especially socio-economic and technology evolutions, as well as political pressure. Hence, many digitally-enabled innovations emerged in the public sector as policy instruments. It was discovered that the UK's public services have been transformed intensively since the launch of the open.gov.uk portal in 1994 (Osmani, 2015). The study also revealed that massive investment was made by the UK government in order to digitally-enable their services. In many situations, the projects were derailed or failed to meet expectations, such as not meeting the original dateline and project scopes (Cabinet Office, 2012). Given that public institutions are complex setups, the reinvention of practices in the public sector moves slower than most private sector innovation. Nonetheless, this did not prevent the government from continuing to introduce innovation regarding public services and the public service delivery systems. In the era of Digital Darwinism, digitally-enabled Service Transformation (DEST) multiplied in response to the societal demands, which led to the introduction of many large-scale DESTs in the UK's public institutions. These innovations must undergo certain processes in order to become institutionalised and turned into government practices. However, some DESTs faced immense challenges in such a process and thus failed to be institutionalised. This research argues that such failures resulted from the interplay between the actions and structures in both the public institutions and public organisations where DESTs were implemented. The actors and structures recursively shape each other. Hence, the right actions will produce structures that facilitate the DEST institutionalisation process, and the correct structures will determine positive actions regarding DEST implementation.

Therefore, this chapter outlined the important roles of the actors and structures in institutionalising DEST in the public sector, and also highlighted the need to develop a conceptual framework for the DEST institutionalisation process. Subsequently, it identified the research aim, objective and research methods for conducting the study. Finally, this chapter outlined the structure of this thesis in eight chapters.

Chapter 2

CHAPTER 2 : CONTEXTUALISING DIGITALLY ENABLED SERVICE TRANSFORMATION IN THE PUBLIC SECTOR

2.1 Introduction

The previous chapter outlined the need, aim and objectives of this research. This chapter will discuss this research need against the backdrop of the previous literature. It will highlight the global trend of public service digitally-enabled transformation and the evolution of Digitally-Enabled Service Transformation (DEST) in the UK's public sector. Thereafter, it will provide a synthesis of the literature on DEST, and then accentuate the institutionalisation challenges associated with DEST in the public sector. Subsequently, it will elucidate the limitations of the previous research that has investigated the institutionalisation of DEST in the public sector. Finally, this chapter will unfold the need for this research, as well as the importance of having a conceptual framework to guide our understanding of the institutionalisation process of DEST in the public sector, which will fill the gap in the existing literature.

The chapter is divided into the following sections: section 2.2 will describe the adoption trend of DEST in the public sector in general. Section 2.3 highlights the polarisation of DEST in the UK's public services. Thereafter, section 2.4 provides a synthesis of the literature on DEST. Next, section 2.5 will uncover the research gap. Finally, section 2.6 will provide a summary of the chapter and identify the research need.

2.2 The Evolution of Public Service Innovation

DEST in the public sector is a burgeoning phenomenon across the globe. It is said that it is due to the influence of information communication technology advancement, which offers the potential for efficient, economic and transparent service delivery to the citizens (Bertot et

al., 2016; Janowski, 2015; Sivarajah et al., 2015). As the result of adopting DEST, dramatic changes were seen to be taking place in the public institutions (Danneels et al., 2017).

The movement to transform the public services started back during the New Public Management era (NPM) (Osmani, 2015). At the core of such a movement is the notion of innovation, which means creating something new so that it will add value, but contextualising this in the public sector is a challenge (Bertot et al., 2016). Osborne and Brown (2011) contend that an innovation movement had taken place in the government, whereby public managers were forced ‘to re-conceptualize their traditional bureaucratic way of doing businesses. They named the effort “Reinventing Government (RG)” and claim that it had drastically improved the public services’ quality and efficiency. In parallel to the emergence of the RG concept is the introduction of the New Public Management (NPM) concept. NPM was initiated as a managerial response to four administrative megatrends, including the utilisation of information and communication technology as tools for improving operations (Osborne, 2006). Unlike the RG concept, that is more entrepreneurship-oriented, NPM focused on enhancing four aspects of public services, i.e. accountability, efficiency, effectiveness, and performance (Hood, 1995). Aligned with the basis of NPM emergence, it was hoped that these focuses would be attained through the adoption of ICT in facilitating public institutions’ operations (Osmani et al., 2012). Hence, the NPM concept was adopted by many countries, including the UK (Osmani, 2015). Despite being able to enhance service efficiency, NPM was criticised for its inability to encourage innovation in reinventing current services (Hood, 1995). Such inability was associated with many things, especially the public institution’s bureaucracy (Thompson, 2000). Nonetheless, some argue that bureaucracy prevents the actors in public institutions from engaging in reckless behaviour, which potentially has undesired implications (Gutmann and Thompson, 2004). Yet, the NPM advocates still believe that public institutions need to be reconfigured as they are relatively

inefficient compared to private institutions (Andrews and van de Walle, 2013; Van De Walle, 2016).

Hypothetically, such a belief is based on an unrealistic assumption. Bertot et al., (2016) emphasise that public institutions are unique for many reasons. First, they reside and operate in an environment that is highly susceptible to shifts. These shifts are transferable to institutions through interactions with the actors outside the institution, including the citizens. Second, the institution has non-financial and non-quantifiable interests, thus measuring the outcomes is sometimes challenging. Third, the institutional functions are enacted through policies. Hence, any transformation on practice requires a change of policy. Therefore, the study suggests that the public institution can be reinvented incrementally, but not re-engineered, as in the private sector (Bertot et al., 2016). Hence, NPM continued to derail in many countries (Goldfinch and Wallis, 2010). Such derailment had gave birth to a new concept, known as the Digital Era Governance, or DEG (Patrick Dunleavy et al., 2006).

The self-explanatory name highlighted that ICT played a focal role in transforming the governance of public institutions and their service delivery system (Margett, 1998). DEG is not exclusively about advanced progression; in any case, it additionally concentrates on legislation (Ferlie and Andresani, 2006). Dunleavy et al. (2005) contended that DEG will affect the administration under the three primary subjects of reintegration, need-based holism and digitisation changes. He suggests that DEG offers a unique opportunity to create self-sustaining change in a broad range of closely-connected technological, organisational, cultural, and social aspects. Having said so, DEG entices many public institutions around the globe to break their siloes (Omar, Weerakkody, & El-Haddadeh, 2014; Omar, Weerakkody, & Sivarajah, 2017a).

Janowski (2015) argues that the evolution from NPM to DEG was to reflect the government's commitment to finding innovative digitally-enabled solutions in responding to the unfolding

environmental pressure. He also claims that such evolution was also motivated by the need to contextualise the government's services. He then divides this evolution into four stages, as follows:

- Digitisation – the use of digital technology to transform internal operations or to digitally enable the existing services;
- Transformation – the use of digital technology to transform the 'internal' relationship with other organisations;
- Engagement - the use of digital technology to transform the 'external' relationship with non-government actors, including the citizens.
- Contextualisation - the use of digital technology to transform the specific context in which the organisation was mandated.

Bertot et al. (2016) suggest ten taxonomies of innovation in the public sector context, including service innovation and service delivery innovation. The study defines service innovation as 'new service or significant improvement to an existing service'. Meanwhile, service delivery innovation refers to a 'new or modified approach to providing a public service or services'. The four-stage digital public service model is adopted as the framework for digital service innovation. The model depicts four stages of digital service innovation, i.e. emergent, enhanced, transactional and connected. Nonetheless, the model was criticised for failing to match the definition of innovative digital government (Bertot et al., 2016). Therefore, a new framework for digital public service was developed to harness the capability of the digital technology (see Figure 2-1). The seven ranges of innovation depicted in such a model are independent, due to the disruptive, non-linear and non-incremental nature of innovation.

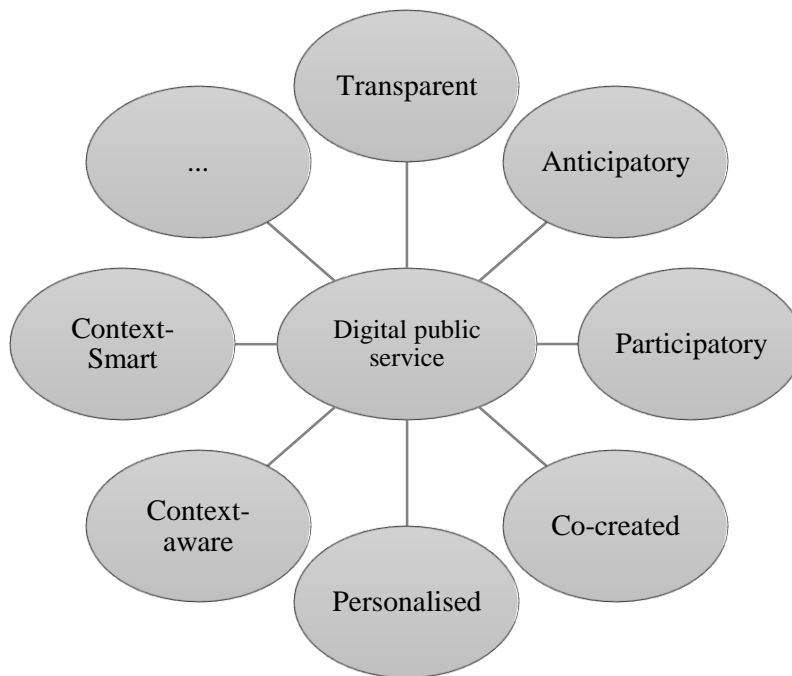


Figure 2-1: Digital public service innovation framework

(Source: Bertot et al., 2016)

The progress from one stage to another is determined by how the government uses the available digital technology to innovate in response to different pressures, before institutionalising it to become standard government practice (Janowski, 2015). This movement is conceptualised in Figure 2-2.



Figure 2-2: Movement from Innovation to Practice in the Public Institution Context

(Own illustration)

Scholars argue that innovation in digital public services are determined by four aspects (Alves, 2012; Kokkinakos et al., 2012): (i) to provide a foundation for government-citizen'

engagement; (ii) to facilitate cross-agencies' engagement; (iii) to involve the non-government actors in service co-creation; and (iv) to provide various platforms for service delivery and use. These aspects signpost that innovation in public service delivery is caused by changes in the institutional landscape, such as the growing social demands, economic volatility and technology advancement. Such was evident in the current era of Digital Darwinism. The rapid technology and social evolution has caused shifting behaviour and expectations in society (Solis, 2016a, 2016b). In responding to the call, the government has multiplied its efforts to transform various public services digitally (Omar et al., 2017a). As such, it may well be that the range of innovation (depicted in Figure 1) was combined to enhance the public services even further.

2.3 Polarisation of Digitally-Enabled Service Transformation in the UK's Public Sector

The UK's public institution has experienced several major transformations over the last few decades (Jones et al., 2017; Osmani, 2015; Tassabehji et al., 2016a). Initially, the management style was targeted as the main focus of such reinventions (Osmani, 2015). This was due to the aim of reducing waste and bureaucracy in the governance, as well as improving efficiency and transparency (Theakston, 1995). Later, the subsequent transformation efforts mimicked the 'business' approach, which emphasised efficiency, effectiveness and economy (Thomson, 1992). That was the era of NPM. To do this, the UK government had vested interests in computer-based systems to aid public institutions' operations and functions (Willocks, 1989).

2.3.1 The Early Waves of Transformation

Being one of the oldest governments in the world, the UK's public institutions had gone through various major transformation trends. Theakston (1995) argues that the earlier waves include the recruitment and training reforms which took place in the 1960s. Such a phenomenon introduced new practices in organisational budgeting, managing and planning. It also introduced new departments, besides abolishing and merging the existing ones. The UK government put a strong emphasise on the importance of technological revolution. This led to the revision of civil service procedures and structures, i.e. the Fulton Review. The review produced a report that marked a significant turning-point in the UK's civil service, when it plans to 'managerialise' the Whitehall. The need for management expertise became the main highlight of such a report, due to the expansion of departments that entail bigger expenditure.

2.3.2 Thatcherism and the New Public Management Era

During the 'Thatcherism' era in the late 1970's, the government made a strong political commitment to trimming down the civil service and, at the same time, increasing the government's efficiency that led to the development of a new strategy (Metcalf and Richards, 1992). It resulted in the introduction of the Financial Management Initiative (FMI) and Management Information Systems for Ministers (MINIS) in 1982, which marked the emergence of New Public Management, or NPM (Flynn, 2007). MINIS was implanted within all government departments (Greer, 1994). It played a significant role in introducing the management information system into the UK's public institution. Computers and their systems were leveraged to enhance accuracy and efficiency, entailing the saving of government costs (CITU, 1996). For instance, the utilisation of the bar code system in ordering the benefit books by the Benefit Agency had resulted in a £50 million saving; the use of unemployment benefit system (NUBS2) by the Department of Social Security had

saved approximately 8 million sheets of paper and avoided 1.5 million phone calls; and the use of the MEDICS system by the Department of Vehicles and Licencing Agency (DVLA) reduced the amount of paperwork and administrative tasks, as the drivers' medical history was made available online, thus speeding up the process of license approval (CITU, 1996). The pinnacle of the 1980's public sector transformation was the project implemented by the Department of Social Security (Willocks, 1989). It involved installing 35,000 computers across all social security departments, which handled 18 million benefits-related enquiries annually (Theakston, 1995). Some claim that several large-scale digitally-enabled transformations in the NPM era were derailed due to the weak project management, including poor staffing and design (Osmani, 2015). The project implemented for the Inland Revenue was one of these, entailing a £16.5 million loss (Willocks, 1989).

Meanwhile, the FMI's role was to reform the management and control of public spending, where the middle and junior managers were authorised to administer public spending, as well as responsible and accountable for the costs and performance targets (Gray et al, 1991). Through that, the FMI significantly transformed the civil service's practices and culture (Metcalf and Richards, 1992). Nonetheless, it also diverted the government's focus towards cost rather than outcomes (Barberis, 1995). This triggered the need for a change of focus.

2.3.3 The Birth of Digital Era Government

In 1988, the government introduced the NEXT Steps (Theakston, 1995), based on the argument that the government's size had impeded its efficiency. Thus, it was proposed that the core civil services and ministerial policy advisers should be separated to create the independent executive agencies that employ huge numbers of officials across the service delivery and operational levels. This separation aimed to reduce the work load at the ministerial level and give more freedom to the agency to perform functions within their

policy parameters (Theakston, 1995). The programme enhanced the performance of public service delivery, including the Passport Agency, by reducing the average time required to process passport applications from three and a half weeks to one week. At the same time, the adoption of information communication technology (ICT) or digital technology as the tools and vehicles for transforming the public institutions continued to grow rapidly in the mid-1990s (Dunleavy et al., 2005). Unlike the NPM era, the focus of the UK's public transformation this time was moved from an administrative process to citizen-centric services, i.e. more customer-focused services (Osmani, 2015; CITU, 1996). Henceforth, it marked the beginning of the electronic-government service delivery, i.e. e-government, in the UK (CITU, 1996). In 1994, the announcement made by the UK Cabinet Office triggered a radical shift in the landscape of the UK's public institution and public services, i.e. to route all of the government departments and agencies websites through the open.gov.uk portal (Cabinet Office, 2010).

2.3.4 The Movement to Integrate Public Services

Two years later, the UK government launched a Green Paper entitled 'Government Direct', outlining a strategy for delivering government services online, i.e. direct to the public (CITU,1996). Subsequently, a discussion paper containing the government's vision in the information age was released, followed by a white paper entitled 'Modernising Government', that contained a detail plan about delivering full services online by 2008 (Cabinet Office, 1999). The reform was meant to bring a 'step change' in the public institution functions (Bovaird and Russell, 2007). It outlines six reform themes: "i) Stronger leadership with a clear sense of purpose, ii) better business planning, iii) sharper performance management, iv) dramatic improvement in diversity, v) more open service to bring in and bring on talent, and vi) deliver better employment arrangements for staff" (Osmani, 2015). These themes brought

about five commitments, including using new technology to cater for the citizens and business needs and the proposed development of a cohesive ICT strategy. Subsequently, a list of important government ICT strategies emerged (Cabinet Office, 2000)

2.3.5 The Strategies Supporting Digitally-Enabled Service Transformation

A year later, a new strategy called “The e-government: A Strategic framework for public services in the information age” was developed, announcing a commitment to expedite the full online service delivery by 2005 (Cabinet Office, April 2000).

The strategy has met its target, where the majority of the departments’ websites were launched. Following the ‘Transformational Government Enabled by Technology’, that was launched a few years later, all of the departments were asked to revise their website contents and plan to migrate them to two portals – i.e. the Directgov website for citizen-related contents and the Business link website for business-related content (Cabinet Office, 2006). Such moves resulted in the closure of more than one website daily. It was evident that, in the pursuit of the strategy’s objectives, the government had wasted a huge amount of public resources by closing down the websites that had been developed for other strategic aims. The ‘Directgov’ portal hosts all of the public departments’ websites, thus providing one-stop access for citizens to public services. In 2004, following a report entitled 'Directgov 2010 and Beyond: Revolution not Evolution', the UK government decided to launch a new strategy called the ‘Digital by Default Strategy’ (Cabinet Office, 2010). A special team, called the “Government Digital Service, GDS”, was formed to transform the government’s digital service provision. The GDS decided to replace and integrate the Directgov and BusinessLink portals on a single portal called gov.uk. Such portal provides a single platform from which to access all government departments’ services and information. It was claimed that the £21.4

million portal provides far simpler and faster access to the citizens, in addition to clearer information (Cabinet Office, 2012).

The pattern of earlier transformations reveals that the UK government strictly adhered to the NPM principle – i.e. reinventing services by mimicking the private institution practices (Kelly et al., 2002). As such, the reinvention of public services in such an era limited the transformative impact on the UK’s public services (Osmani, 2015; Dunleavy et al., 2006), compared to the current era of DEG and Digital Darwinism. In January 2017, the government tabled a green paper entitled “Building out Industrial Strategy”, suggesting integrated moves and stepping up by related departments to back business as part of the post-Brexit Plan (Cabinet Office, 2017). The main agenda of such a strategy is to improve the living standards of the people in the country, as well as the UK economy (Cabinet Office, 2017). One of the actions required is for the government to support the growth of a ‘digital economy’. To do so, the government had developed the UK Digital Strategy. The main objective of the strategy is to “build on the existing success to develop a world-leading digital economy that works for everyone” (Department for Media, Culture, Digital and Sports, 2017). The strategy supports seven pillars – i.e. building a world-class digital infrastructure for the UK; giving everyone access to the digital skills they need; making the UK the best place to start and grow a digital business; helping every British business to become a digital business; making the UK the safest place in the world to live and work online; maintaining the UK government as a world leader in serving its citizens online; and unlocking the power of data in the UK’s economy and improving public confidence in its use. Hence, the government had decided to embed digital technology in the UK’s public services by transforming the services in the fields of healthcare, tax, education, transport, energy, policing and justice, welfare, diplomacy, culture and local government (Department for Media, Culture, Digital and Sports,

2017). Figure 2-1 summarises the evolution of the digital policies adopted by the UK government that drive DEST in the UK's public sector.

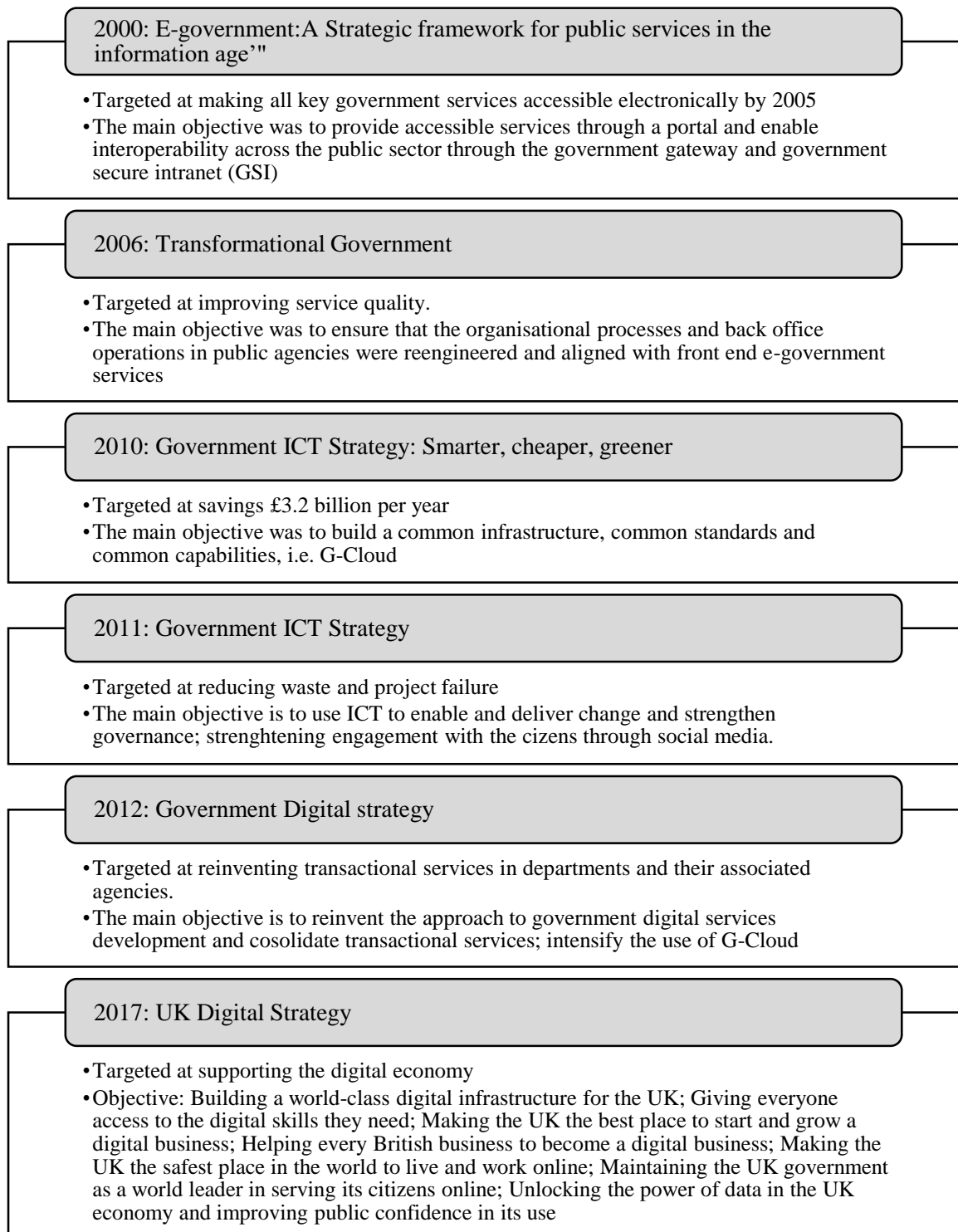


Figure 2-3: The Evolution of Digital Policies in the UK's Public Sector

(Own Illustration)

2.4 Review of Literature on the Institutionalisation of DEST in the Public Sector

The deployment of digitally-enabled changes or transformation in the public sector is a booming phenomenon across the globe. This has become so ubiquitous that it is difficult to picture any government services or issues that do escape utilising such technology. Despite the constant growth of its adoption, the track record of its implementation and performance varies across government organisations (NAO, 2017). Such discrepancies have provoked extensive scholarly debate across different contexts. A review on the public sector digitally-enabled services transformation literatures was conducted to understand the scenario. The findings are presented in the next section, followed by the researcher's conclusions on the research gaps.

2.4.1 Research Themes

Reviews on literatures reveal that the debates on DEST largely fall into two streams of focus. The first stream studies the factors affecting institutionalisation of DEST in public sector (i.e. factors that trigger, facilitate and impede the institutionalisation of DEST). Meanwhile, the second stream seeks to understand to the cause and effect of DEST institutionalisation process from management perspective. Some of the notable researches on these themes are outline in Table 2-1.

Table 2-1: The Themes of the existing research on DEST

(Own illustration)

Focus	Main Research Findings	Research
Focus 1: What are the factors	The research highlights that misunderstanding on the user-provider relationship in DEST implementation could impede the formation of new practice that enables DEST	Senyucel (2008)

affecting DEST institutionalisation in public sector	institutionalisation.	
	The research highlight that the co-evolution of technology and institutional components implicates the adoption and functionality of the government portal.	Luna et.al (2013)
	The institutionalisation of DEST was challenged by the conflicting logics and attempt to introduce organisational change, that resulting in resistance.	Currie (2012)
	The research focuses the impact of concurrent organisational learning on facilitating the DEST institutionalisation process.	Phang et al. (2008)
	The research highlights that DEST emerges due to economic (i.e. transaction costs and the revolution of a knowledge-based economy), political (leadership support and regulations), social (the digital divide and citizen empowerment) and technological (the evolution of ICT and internet and platform integration) pressures.	Al-Busaidy & El-Haddadeh (2011)
	The research highlights that the interactions between various institutional actors create unexpected outcomes that impede DEST institutionalisation process	Devadoss et al. (2003)
	The research explains the implications of technology on the relationship between government and citizens. It was suggested that technology could dramatically change institutional structures that potentially entails unintended consequences.	Heinze and Hu (2005)
	The research focus on the political, structural, operational, managerial and cultural challenges in the context of delivering integrated digitally-enabled public services.	Flumian et al. (2007)
	The research highlights the tensions between institutional roles of public bureaucracy (i.e. low-entrepreneurial ethos) and efficiency principle of information technology (IT) impeded DEST institutionalisation.	Wiredu (2010)
	DEST institutionalisation is extremely challenging in a highly institutionalised organisation with diverse institutional field, because it contains various logics.	Currie & Guah (2007)
Managerial cause and effect of DEST institutionalisation in public sector	The research suggests a common platform for discussion on the issues related to technical, organisational, managerial and socio-economic aspects of DEST institutionalisation.	Dwivedi et al. (2011)
	The research focus its debate on the importance of considering technology as the antecedent to pressure in the DEST institutionalisation managerial framework;	Meneklis and Douligeris (2010)
	The research explores the outcome of the interplay between IT artefact and citizens in DEST	Basetthalli et al. (2010)

	implementation.	
	The research was conducted to study the mechanisms used by the European Union to institutionalised DEST in the public institutions of its member countries.	Criado (2009)
	The research provides insights on the isomorphic diffusion of technologies across public organisations that have different institutional logics, and suggest that structuration process of such transformation occurs at a macro level, facilitated by the strong political structure.	Tatcher et al. (2006)
	The study highlights that lack of exposure on the specific tools and techniques for process modelling and re-engineering had impeded the institutionalisation of DEST in public sector.	Weerakkody et al. (2011)
	The study elucidates managerial practices based on the lessons from multiple public agencies on the DEST institutionalisation to promote cost savings and better services.	Weerakkody et al. (2016)
	The study focus on the importance of establishing internal decisions and standard operating procedures, as well as identifying which behavioural and technological changes will be implicated by the DEST, before using it to support strategic mission.	Mergel (2016)
	The study focus on the importance of the institutional entrepreneurial characterisation and enactment in facilitating DEST within any contemporary public sector context.	Tassabehji et al., 2016

These findings signpost the critical demand for a different research theme, as the existing themes of DEST debates (as shown in the table) are unable to provide deeper understanding on DEST institutionalisation process. Despite of its importance, a deeper understanding on the DEST institutionalisation process requires insight beyond than the knowledge on implicating factors and causal relationship of the managerial actions. This turns into a substantial research gap.

2.4.2 Methodologies of the Past Research

The majority of the DEST research was supported by empirical evidence. Nonetheless, it was conducted qualitatively in highly specific settings, such as the healthcare sector, which limits their generalisability (e.g. Currie & Guah, 2002; Diniz et al., 2012; Klischewski and Abubakr, 2010; Luna-Reyes and Gil-Garcia, 2013).

Meanwhile, a single case study appeared to be the favoured approach of qualitative inquiry. Nonetheless, the fact that they employed a ‘non-exploratory’ single case study limits the insightful lessons on DEST institutionalisation. Examples of such research are Diniz et.al (2012), who studied the financial sector, Phang et al. (2008) who studied e-government implementation in a high power-distance country (Singapore), Basettihalli et al. (2010) who assessed the implementation of eGovernment in a rural area of India and, finally, Thatcher et al. (2006), who had investigated the case of the Children and Families Department in the USA. In addition, the cross-sectional time period used to conduct research also had the same impact as the single case study. It was found that very few studies were conducted longitudinally, such as Boudry and Verdegem (2012), Luna-Reyes and Gil-Garcia (2011) and Flumian et al. (2007). Currie (2012) suggests that future research on institutionalisation of DEST in public sector should consider a comparative study between institutions of the same sector). Nonetheless, the behaviour of institutional actors is cultural dependent. Hence, this research argues that even two institutions of the same sectors were studied, the generalisability of findings is still difficult to achieve if the two institutions are in different contexts. ,

Most of the existing literature on DEST institutionalisation used European countries, particularly the UK, as their study context. Indirectly, this trend indicates that large numbers of DEST projects or programs are available in such a context. The UK was in the maturity

stage of ‘e-government’ and ranked top of the e-government index (United Nation, 2017). Hence, the UK provides the best research context for learning lessons about DEST institutionalisation (Omar et al., 2014).

2.4.3 Findings on DEST’s Institutionalisation Challenges

There are numbers of institutionalisation challenges that were highlighted in the past research as factors that impede the institutionalisation of DEST. The challenges are typified in two notable broad categories, which some are presented in Table 2-2.

Table 2-2: Challenges of DEST institutionalisation

(Own illustration)

Categories of Challenge	Description of Challenge	Reference(s)
The complex nature of the public sector’s institutional environment	Diversity of the stakeholders, resulting in the creation of various practices.	Dwivedi et al. (2011); El-Haddeh et al. (2013)
	Interlacing of logics among the diverse actors influence the actors’ interpretations, judgements and actions.	Currie and Guah (2007)
	The policymakers often overlook the impact of the policy instrument towards the institution.	Currie (2012)
	Service transformation in public sector often requires reintegration of all functions across the governmental sphere, rather than individual department.	Dunleavy et al. (2005)
	Political power, organisational structures, leadership and culture of the public institution often impede the integrated approach to transform services.	Flumian et al. (2011)
	Lack of critical learning and adaptation capability among the Institutional actors.	Basettihali et al. (2010)
	Lack of commitment and engagement among the institutional actors.	Klischewski and Abubakr (2010)
	Lack of input on the DEST and minimum training given to the organisational actors had disabled the intervention.	Diniz et al. (2012)

Unintended Outcome of Technology Use	The implication of technology use on the institutional setting over time was often disregarded, thus impede understanding on DEST institutionalisation and disabled assistance.	Helbig et al., 2009; Yildiz, 2007
	The implementation of DEST was treated merely as technological change, rather than cultural change. separated from technology to innovate service was separated from	Montealegre, 1997
	Technology was treated as self-enacting – a treatment that had failed the intervention on institutionalisation of DEST.	Tassabehji et al., (2016)
	Technology could become a structural change agent. The application of technology as a transformation tool entails changes in practices that affect organisational culture.	Heinze and Hu (2005)
	The dynamic nature of technology impedes institutionalisation of DEST.	Heinze and Hu (2005) El-Haddeh et al. (2013)
	Technology is often applied in different ways from it is initially designated, hence brings unintended consequences.	Heinze and Hu (2005)
	Technology could bring uninvited social and cultural impacts (e.g. over-indebtedness, the reproduction of social exclusion and the reinforcement of power asymmetries)	(Diniz et al, 2012).
	The paradox that of viewing technology as a stable artefact with fixed role.	(Heinze and Hu, 2005).

2.4.4 Practical Implications of the Research

Along the more than two decades of DEST’s journey, various researches have claimed to have made a myriad of contributions in the DEST field. However, the phenomenon of derailed government Digitally-Enabled Transformation Programs/projects continues to burgeon (NAO, 2017). This promotes us to reflect if there is a missing link between the research and the outside world of practice (i.e. the government).

Although the recent alarming progress of governments' digital-led transformations signposts the desperate need for practical implications, research reveals that more than half of the existing studies in this field offer hardly any specific practical recommendations, while the rest offers a single paragraph (at most), as recommendations for practitioners (Heeks and Bailur, 2007). Meanwhile, an analysis of over 300 scholarly articles in recent decades reveals that the researchers found it difficult to unveil new insights that could assist practitioners (Omar and Osmani, 2015a). Having said so, this research posits that the approach used in the previous research contributed to this issue.

It was suggested that research and real practice are linked by academic theory (Dawes 2013), but theory is not self-explanatory, unless verified against evidence – and the amount and type of evidence that would be obtained in any research is factored against the strategies used to gathering them (Mintzberg, 2005). Dawes (2013) proposes that standards and methods should be used to connect real government practices and academic knowledge, in addition to relying on the academic theories. He argues that profound knowledge on how the government institutions work, together with the tools used to approach the research, are vital for ensuring that the research results will best serve the government and scholars' needs. The creation of new knowledge depends on the process of interpreting and combining the existing knowledge – and this is what characterises science as a cumulative endeavour (vom Brocke et al., 2009). Knowledge is insightful if it surprises us with the elucidation of a profound view and an understanding of a phenomena that we thought we understood. Yildiz (2007) insists that examination of the political nature and policy processes of digital-led transformation through the use of a multitude of types of evidence is vital in order to add value to the current research. Furthermore, the divergence in methods and approaches condition the robustness and practicality of research (Gil-Garcia, Dawes, & Pardo, 2017).

2.5 Filling the Research Gap

All of the aspects highlighted in section 2.4 need to be advanced. The challenges highlighted in section 2.4.5 specifically signpost the need for a better understanding of the institutionalisation of DEST in the public sector.

This research posits that technology is only an integral part of a structure and the use of such technology shapes and is being shaped by human actions, or the stakeholders. This research agrees that DEST is one of the social components that undergo changes due to the social interactions among the stakeholders and structures. Hence, this research suggests that the existing theoretical viewpoints are inadequate for understanding how DEST affects the roles and shapes of the main organisational properties – the stakeholders (people) as the actors, and the structures (processes and procedures) – throughout the institutionalisation process against the backdrop of public institutions. Most studies show that good institutionalisation practice is the key to gaining organisational and public benefits from DEST (El-Haddadeh et al., 2013; Currie, 2012). Besides a thorough understanding of the institutional fields (Currie, 2012; Currie and Guah, 2007), the role of the actors (which is characterised as voluntaristic, subjective and dynamic), and supporting structures (which are deterministic, objective and static in nature) must be examined and understood to ensure institutionalisation success. As reflected in the literature, the role of the actors was addressed as a challenge during the institutionalisation process of DEST (Veenstra et al., 2014; El-Haddadeh et al., 2013; Currie, 2012; Al-Busaidy and El-Haddadeh, 2011; Currie and Guah, 2007). Meanwhile, the role of the structures, such as top management support and the availability of appropriate training, were represented as desired interventions in order to achieve an institutionalised stage (El-Haddadeh et al., 2013; Diniz et al., 2012; Al-Busaidy and El-Haddadeh, 2011; Currie and Guah, 2007; Tatcher et al., 2006; Devadoss et al., 2002;). Although most studies make sensible recommendations, they leave the main challenges of DEST – such as the actors and

structures' roles throughout the institutionalisation process – largely unexplored (see Janowski, 2015; Majchrzak, Markus & Wareham, 2016). None of the existing studies analyse both.

Therefore, there is a need to uncover useful insights to enable better future practices and interventions in DEST implementation beyond the existing paradox. As posited earlier, DEST is a socially-constructed process – the fact that was also supported by previous studies (Veenstra, Melin & Axelsson, 2014; Veenstra, Janssen & Tan, 2010; Walsham, 2002).

Hence to facilitate better understanding and rigorously frame the DEST context, attempts should be made to explore the role of institutional actors and structures towards DEST implementation. This is because in reality, the lack of understanding on the fluidity and complexity of the structure and dynamicity of the interactions among the actors during DEST implementation have appeared to be a major challenge that impede the DEST institutionalisation success. A major gap seen in the literature is the lack of argument about the interrelationships among institutional structures and their human actors, and how the outcome of these interactions at every stage can either facilitate or impede the institutionalisation of DEST in public sector organisations.

Meanwhile, the use of a single strategy in the data collection would limit the richness of the data, as well as the robustness of the findings (Yin, 2018). Besides, DEST institutionalisation is a change process. Saldana (2003) asserts that change is contextual in nature, because the factors influencing change to occur, i.e. time, social actions and circumstances in the social actions, are all contextual. He added that, while the concept of “from-to” depicts the product of change, the concept of “from-through” implies the temporal perspective of change, i.e. the change process. This justifies the need to conduct DEST institutionalisation longitudinally.

As Dawes (2013) suggests, standards and methods are vital elements that can connect the real government practices with academic knowledge in order to identify the insightful practical contributions of research. Hence, besides richness of data, exploratory study – a method that can provide a detailed account of a phenomenon in a social sphere (Marshall and Rossman, 2016; Saunders et al., 2015), should receive priority in DEST research.

The absence of an adequate understanding of institutionalisation was evidently proven to be one of the major drawbacks that impede DEST implementation. Learning lessons from past DEST cases could suggest answers to the research question and elucidate insights on how better to understand the DEST institutionalisation process in the public sector. Thus, the institutionalisation of digitally-led services in the public sector requires further investigation.

2.6 Summary

From the literature, it was evident that the UK's public institutions have invested huge efforts and resources in implementing DEST. It is also undeniable that the transformation is timely due to the demands from the institutional environment, and ICT offers great potential for transforming services. Nonetheless, the research found that the majority of the large-scale DEST projects, including in the UK, had failed to be institutionalised. The existing literature suggests that this was due to technical and managerial challenges. Nonetheless, research on the processual accounts of DEST institutionalisation in public sector remains scarce. This research suggests that inability to deeply understand the detail account of such process is a crucial factor that impedes a successful DEST institutionalisation in the public sector. This scenario forms a major research gap that promotes calls for further investigation.

Digitally-Enabled Service Transformations in the public sector were aimed at enhancing the government functions and service delivery within public organisations. In reality, this ambitious intention was challenged by the fast technology and societal evolution against the

backdrop of Digital Darwinism era, as well as the complexities of the public institutions. These intertwining factors impeded the institutionalisation of DEST in public institutions. This complex situation should be better understood in order to provide assistance for future DEST institutionalisation. Hence, this research posits that the gaps should be addressed to establish a better understanding of what implicates the DEST institutionalisation process in the public sector context and how to assist this process in the future.

Chapter 3

CHAPTER 3 : LESSONS FROM THE PAST DIGITALLY-ENABLED SERVICE TRANSFORMATION IN THE UK

3.1 Introduction

The previous chapter discussed the contextualisation of Digitally-Enabled Service Transformation (DEST) in the UK's public sector that has been taking place during the last few decades. The chapter also outlined the current scenario of DEST institutionalisation debates among the scholars. Past evidence show that many DEST in the UK's public sector have failed to be institutionalised, which has sparked much scholarly debate. For instance, the case of National Health Service (NHS) - National Programme for Information Technology (NPfIT) in particular had received attention from Currie and Guah (2004), Hendy et. al. (2005), and Currie (2014) for detail investigation on the failure. However, the majority of the DEST institutionalisation debates were focused on the technological aspect of the transformation and the strategic actions of the stakeholders. Taking the study by Currie and Guah (2004) – for example, it was argued that conflict of ethos is the main factor that impedes the NPfIT success. Nonetheless, the processual accounts of NPfIT institutionalisation is not clearly highlight.

Barley and Tolbert (1997) asserts that the interactions between subtle elements of the organisation and institution shape the practices. They also claim that the inter-relationships between the stakeholders' actions, culture, norms and pressures underpin the institutionalisation process of an innovation. This perspective was shared in part in studies of DEST institutionalisation by several scholars (i.e. Bunduchi et al. 2015, Currie 2012; Currie and Guah 2007; Jun and Weare 2010; Frumkin and Galaskiewicz 2004). However, these studies failed to provide a detailed explanation of how this interplays occurs, thus deluding insight on how DEST is institutionalised. In a different stream, the public policy scholars

have recognised the significant roles of stakeholders in shaping the organisational structures and the outcomes of policy instrument implementation (i.e. McBeath and Meezan 2009; Ingold and Leifeld 2014; Grissom 2012; Villadsen 2011). This had deluded understanding towards DEST institutionalisation process in the PS context. Hence, there is a call to provide an understanding on how these elements implicate DEST institutionalisation in the public sector context. Therefore, this research will address such a call by investigating the concept of DEST institutionalisation, before proposing a conceptual framework that will facilitate understanding of DEST institutionalisation, but first it must identify the key concepts related to DEST institutionalisation.

Hence, this chapter elucidates lessons learned from the past failed and successful DEST cases in the UK public sector. The purpose is to draw key conceptual themes that could facilitate the identification of theory(s) which will be used to form the analytical framework for this study. The cases are: (i) National Health Service (NHS) National Program for IT (NPfIT); (ii) British Broadcasting Corporation, BBC -Digital Media Initiative (DMI); = (iii) Tell Us Once (TUO); and (iii) Driver and Vehicle Licensing Agency Next Generation Shared Service (DVLA-NGSS). The two successful cases and two derailed cases of DEST institutionalisation were deliberately selected to depict various lessons that can be learned about such process. The basis of selection was the project cost, the implementation period and the project scale (measured against the project cost). Besides, the judgements of the experts (i.e. the e-government scholars and public sector practitioners) were also obtained to ensure that those cases are able to elucidate rich institutionalisation evidence. The summary of the case background is outlined in Table 3-1.

Table 3-1: Summary of the Case Background

(Own illustration)

NHS - NPfIT	BBC-DMI	TUO	DVLA-NGSS
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Project Owner	Dept. of Health, England	British Broadcasting Corporation	Dept. for Work and Pension	Dept. for Transport
Project Cost	£10 billion	£125.9 million	£111 million	£94 million (for 26 government departments)
Programme Objective	Centralised and integrated electronic patient care records.	Digital production material archive, allowing re-use of materials for new productions and retrieval through desktops.	A one-stop- center to report the death of relatives or next-of kin.	An integrated, shared back office services for DVLA that caters support roles such as HR, Payroll and Finance.
Project Status	Terminated in March 2013	Terminated in May 2013	Running since 2011	Running since 2013

Empirical data for the cases were assimilated from various archival records, such as policy documents, publicly published project progress reports, credential audit findings reports, the websites of related organisations, and newspaper articles. Among the records used were the National Audit Report 2014, the House of Commons Committee of Public Accounts 2011 and 2013, Articles on the Digital Transformation Blog as well as the Digital Transformation and gov.uk websites. The use of multiple sources was designed to ensure the reliability and reasonable triangulation of the empirical data.

As such, the researcher practised the iterative questioning process, where several questions were repeatedly asked on each case; for instance, the question of what triggered the initiation of DEST and when, who were involved in the implementation, what their roles were, how the implementation was achieved and what happened throughout each process.

Detailed reflections on the lessons learnt from this case study were presented in section 3.3. The main procedure involved after the identification of lessons was the analysis of the key events that emerge throughout the timeline i.e. starting from the project ideation to their implementation and normalisation or termination – and the factors that unfolded with them. The researcher anticipated that such a timeline potentially constituted the whole process of

institutionalisation, which might assist the identification of the process matrix, together with the final case that could exhibit evidence of the DEST institutionalisation process.

3.2 The Past Digitally-Enabled Service Transformation in the UK: Cases Background

3.2.1 National Program for Information Technology

The National Program for Information Technology (NPfIT) is the largest civil IT programme worldwide, with an estimated technical cost of £6.2 billion over a 10-year period (Peltu et al., 2008; Weerakoddy et al., 2014). Launched in 2002, the NPfIT was designed to reform the use of patient information and improve the quality of patient care (PAC, 2009) within the UK's National Health Service (NHS). By early 2000, the NHS had thousands of fractions IT-enabled systems (Currie and Guah, 2007), which decreased their efficiency in handling patient information, thereby impeding the quality of the services rendered (NAO, 2006). For NHS to provide efficient patient care and treatment, the way in which such information is handled should be improved (NHS Executive, 1998, p.13). The result of the Wanless Review in April 2002 on the long-term trends in the NHS highlighted that the NHS had experienced low IT investment compared to other parts of the UK's public sector and healthcare spending. Such a review led to the government's decision to fund new IT investment in the NHS to fund the development of the National Programme for IT (NPfIT) in June 2002 (Campion-Awwad, et al. 2014; DH, 2002, p.1). For such a purpose, the NPfIT would deliver four key elements: "integrated electronic health records system", "electronic prescriptions", "an electronic appointment booking system" and "an underpinning IT infrastructure with sufficient capacity to support the national applications and local systems" (Campion-Awwad, et al. 2014). The NPfIT would then allow patients to access their records at any time, healthcare professionals could also access patient record and information to support their

roles, NHS managers can use the secondary data to utilise resources better, and the public can use secondary data to monitor the performance of NHS centres and service providers (Campion-Awwad, et al. 2014; NHS Executive, 1998).

A National Strategic Plan (NSP) for the NPfIT was produced, outlining the details of the programme's strategy and the stakeholders involved. This was designed to allow the central government to take greater control over the "specification, procurement, resource management, performance management and delivery of the information and IT agenda", which combines the implementation at the national and local levels (DH, 2002). However, the method for obtaining the stakeholders' engagement was not specified. In light of this, an advisory group was established as a channel for the clinicians to provide input regarding the NPfIT, but less was heard (Campion-Awwad, et al. 2014).

In July 2002, the findings of a review indicate that, despite the well-enclosed primary issues, such as funding and management, the project appeared to lack stakeholder engagement (OGC, 2002, p.6). At the same time as NSP was being developed, an outcome-based specification (OBS) document was prepared, outlining the required deliverables and outputs of each process, as a partial requirement for public sector contracting by the government. OBS was published in August 2002, containing recommendations such as the NPfIT's features and requirements, as proposed by clinicians. However, no action was taken (Campion-Awwad, et al. 2014). Such a situation resulted in the omission of critical features, that affected the NPfIT's functions (Pagliari 2005; Currie and Guah 2007).

In the winter of 2002, a revised OBS was published, followed by a contracting process. Although it was claimed that, through this structure, the NPfIT had engaged various stakeholder groups, the OBS was produced without a proper analysis of the requirement statements (QinetiQ, 2005, p.27). In fact, many claimed that they were given insufficient room to provide their views (PAC, 2007, p.17). The contract was divided into three parts: (1)

Local Service Providers (LSPs), who would deliver the electronic Health Record System (eHRS); (2) National Application Service Providers (NASPs), who would deliver the national elements, specifically the electronic booking system and the Central Spine or Central Summary Care Record Service containing a summary of patient records; (3) and National Infrastructure Service Provider(s) (NISPs), who would deliver the national broadband infrastructure and private network connecting clinicians to the system. Despite the target of delivering the same eHRS, the contract for LSPs were divided into five regions (see table 2). Although the contracting process was completed in February 2003, the LSPs' deliverables were subsequently added to due to emerging requirements. It was claimed that, despite having very limited knowledge about the public sector especially healthcare services, the large IT contractors signed a long-term contract (i.e. 10 years) (NAO, 2006). The speed and centric approach of contracting the NPfIT's services was regarded as NPfIT's weaknesses, as it experienced inadequate testing and consultation with the end users (PAC, 2007), which led to the purchase of the 'wrong' product (PAC, 2007).

From June 2003 to March 2006, the NPfIT experienced a massive turnover in its senior management team, which resulted into slow project progress. In April 2005, the Connecting for Health agency was established, replacing the NHS Information Authority. At around the same time, tension developed between the LSPs and their subcontractors, resulting in the NISP contractor being terminated in March 2004 and replaced in July 2004 due to unreliable service (PAC, 2007). Meanwhile, penalties and fines were imposed on the LSPs and Trusts for missed deadlines and delays, and the contractors noticed the impact of non-delivery on earnings shortfalls, followed by contract termination. IDX was dumped by Fujitsu and BT, and replaced by others. Subsequently, Accenture also walked away after paying a penalty.

The problem persists throughout the implementation period. However, some modules that were developed before the NPfIT, such as the electronic prescription service, New National

Network and x-ray system, were well delivered and implemented (PAC 2007; Campion-Awwad et al. 2014). The Choose and Book system was likely to experience local problems in clinics due to the outdated patient administration systems prescribed by the LSPs (PAC, 2007). In January 2009, the Public Accounts Committee criticised the NPfIT's costs and progress, questioning the escalating cost without benefits evidence, within seven years of implementation. It was suggested that the NPfIT should be assessed beyond its framework (PAC, 2009). The programme was beset by changing specifications, technical challenges and disputes with suppliers, which left it years behind schedule and over budget.

In September 2011, the NPfIT was officially dismantled. It was then labelled as one of the “the worst and most expensive contracting fiascos” in public sector history, wasting nearly £10 billion of taxpayers’ money (Committee and Accounts, 2013). Despite this failure, taxpayers’ money was still spent on the contract transition and exit costs associated with the programme in 2013/2014, and the development of several components of the programme continues, under different management structures, even though the benefit of the programme has not yet immaterialised.

3.2.2 Digital Media Initiative

The British Broadcasting Corporation (BBC), the oldest public broadcaster in the UK, initiated the “Digital Media Initiative” (DMI) in 2007 (National Audit Office, 2014). Based on a motivation to enhance efficiency and lower operational costs, DMI aimed to modernise the BBC's production and archiving methods by using connected digital production and media asset management systems. With an initial cost of £82 million, the project was designed to be in operation 18 months after its initiation (National Audit Office, 2011).

In 2007, the BBC accepted the Royal Charter – a formal document granting it the right or power to broadcast and explicitly recognising its editorial independence and public purposes

(British Broadcasting Corporation, 2014). Such an inception resulted in massive BBC governance restructuring, where the Board of Governors was abolished and replaced with the BBC Trust and Executive Board. Appointed by the British monarch on the advice of her ministers, the BBC Trust sets the strategy for the Corporation, assesses the performance of the BBC Executive Board in delivering services, and appoints the Director-General – who oversees the general management of the organisation, acts as the BBC's Editor-in-Chief and chairs the Executive Board. The Trust works together with the National Audience Councils. The Executive Board, headed by the Director-General, consists of both Executive Directors (i.e. the BBC division heads) and Non-Executive Directors (i.e. people sourced from other companies or corporations, and appointed by the Trust). The board is accountable for the operational management and delivery of services within a framework set by the BBC Trust. To ensure that the BBC abides by the national priorities within the broadcasting and creative industry, its strategic actions are monitored by the Department for Culture, Media and Sport (DCMS).

In the same year, the BBC made major cuts in terms of staff and assets to reduce its operational costs. Such a move was partially triggered by the shaky UK economy (The Telegraph, 2009). As the core activity of the BBC is to broadcast television and radio programmes, the production process was seen as the major operational overhead. To alleviate this burden, the BBC announced the **Digital Media Initiatives (DMI) project**. The DMI was a major technology-enabled transformation programme, designed to allow the BBC's staff and partners to develop, create, share and manage video and audio content and programming on their desktops (British Broadcasting Corporation, 2013). It aimed to equip staff with a single tool to enable video and radio production from end-to-end, which means from raw materials through to the final edit. The system required the development of a fully-integrated

digital production and archiving system, incorporating the vast media materials archive that has built up over the many decades of the organisation's existence.

The project was awarded to the BBC's existing technology provider, Siemens, in February 2008 under a closed tender at a capped price of £82M, target to be completed in May. The contract was then terminated in July 2009, as the contractor was unable to meet the emerging project expectations. Thereafter, DMI was developed in-house, using technology (NAO, 2014). As the change was not mapped onto the release schedule, confusion among the DMI programme team and the users increased. However, in June 2010, the timeline was revised, and new requirements were added (NAO, 2014; PWC, 2013). The Trust then realised that such changes would affect the work operation and culture, an aspect which had been overlooked at DMI's inception. As this break-out happened, users started to lose confidence in the system and seek their own reliable alternatives, and the BBC's forecast business benefits started to erode (National Audit Office, 2014). At this point, DMI was admitted to be a highly complex technology-enabled business transformation programme (Price Waterhouse Coopers, 2013). In a rescue effort, a DMI Steering Group was established. The new structure was integrated into the existing BBC corporate governance framework, which administers a separate DMI Governance group. The steering group reports to the Director General Finance Committee. Such a set-up had created a complicated and confusing governance model, where two groups doing the same tasks existed in the same context at the same time (Price Waterhouse Coopers, 2013). The pressure mounted when the government announced the termination of funding for two BBC channels and the freezing of the television license fee until 2016, which is the BBC's major source of income.

In the following year, NAO (2011) reported that the project's technological development looked promising and that the success of the project would depend on users' buy-ins. A revised plan was released and approved by the DMI Steering Group, and the programme was

expected to be completed in August of the same year (i.e. 27 months after originally planned). In July 2011, it was found that the DMI had failed to meet critical milestones. In November 2011, it became apparent that the new dateline could no longer be met. A review was held and it was suggested that the project be reassessed regarding the resources needed for further development. In March 2013, the BBC completed a review and decided that “DMI would not deliver the BBC’s future business needs for digital, tapeless production, at which point the decision was made to stop the programme and write down the asset value” (Price Waterhouse Coopers, 2013). Surprised by this news, the BBC Trust appointed Price Waterhouse Coopers (PWC) to undertake an independent review. This review, which concentrated on the period after the NAO’s DMI report in 2011 until the declaration that the project would be stopped in May 2013, provided insights into seven areas, with special attention paid to the project governance, reporting and controls, and also agreed with the conclusion of the previous review.

It was reported by PWC (2013) that the steering committee had failed to include the operational change status in their progress report. DMI’s progress was reported to the DG Finance Committee on a monthly basis and to the BBC PMO on a quarterly basis. The BBC PMO is a corporate function within Operations, providing project management services to support Executive decision-making and oversee the BBC's critical projects, including co-ordination and delivery (BBC, 2014). Noting its function, the BBC PMO was the body that prepared reports for the Executive Board, consolidating the status and progress of all critical projects, including DMI, on a monthly basis. Being part of the report, the DMI situation was reported at a very high level and unexplained in detail. Most of the critical phases in DMI, that required special attention and prompt action, were hidden from the board’s knowledge, thus inviting the failure of the project. To make thing worse, when the report was tabled, the Executive Board heavily relied on the non-executive members, who had relevant expertise of

the project, to provide appropriate feedback or challenge the report by the BBC PMO. Moreover, the weak functioning of the steering board in failing to update critical issues and navigate the programme's challenges severely damaged the project management, combined with the absence of a periodic review, since the project started in April 2010, and a lopsided project focus on technology rather than operational issues, thereby neglecting the importance of change in the work culture as the driver of operational change. Moreover, the failure of the BBC Trust as the governing body of the BBC to exercise its role was detected as one of the major problems (Price Waterhouse Coopers, 2013). It was claimed by the Trust that they only received the DMI status overview report on a quarterly basis, which was insufficient to enable them to provide and recognise the need for pertinent intervention in the project. However, PWC (2013)'s findings suggested that, from 2010 to 2012, the project was only challenged by the Trust twice – first in 2010, when the project needed to be brought home, and secondly in 2012, when the project required impact clarification regarding its time and delivery to justify the extra costs needed for further development, by which time it was too late to intervene. After a five-year-long development struggle (2007-2012) costing £125.9 million, DMI was finally abandoned in May 2013, labelling the endeavours to overhaul the BBC material archive as reckless expenditure and the waste of an enormous amount of license payers' fees (National Audit Office, 2014).

3.2.3 Tell-Us-Once

The TUO development programme was led by the Department for Work and Pensions (DWP), involving HM Revenue and Customs (HMRC) and local authorities as the main stakeholders. The programme was commissioned in 2007, with extensive collaboration with the Cabinet Office, HM Treasury, Driver and Vehicle Licensing Agency (DVLA), Department for Transport (DfT), Identity and Passport Service (IPS), Communities and Local

Government (CLG), Improvement and Development Agency (IDeA), Local Government Association (LGA) and Information Commissioner's Office (ICO). Running at an estimated cost of £111.03 million, spread over a 10-year period, TUO's five big themes of transformation were: Cross-government, Identity Assurance, Data Sharing, Information System/Information Technology and Governance. The key transformation was reflected in three spectra: communication channels, work process and data integration.

TUO was driven by a motive to ease the death-reporting process through a single channel in one attempt, as well as to eliminate task duplication and the associated costs within the various public agencies involved. Prior to such transformation, a death-reporting process was a confusing, emotionally draining experience, where the family member of the bereaved had to contact up to 40 different agencies to notify them of the death and cancel the facilities associated with the deceased (LGA, 2014; Fife Council, 2010). Such a process was not only time- and cost-consuming for the citizens, but late reporting led to the wastage of government resources. TUO modified this work process by channelling the updated information to every database within the respective government agencies. For instance, when a death was reported to a local registrar's office, a unique reference number was provided to access the TUO service. Once the number had been obtained, the deceased person's record could be updated by phone or by using the online TUO system. The updated record would be communicated to other relevant agencies using a specific 'back-office system'. Once the record had been updated, all of the public facilities associated with the deceased, such as benefit payments, tax, 'blue badges' (parking permits for disabled people), housing benefit, work benefits, tax credit, driving licenses, passports and entry on the electoral register, would be cancelled. Such notifications helped to save public money by decreasing the incidences of overpayment and fraudulent payment (Department for Work and Pensions, 2011).

It was claimed that the TUO programme development followed the agile approach principles, as outlined by the HM Treasury (Improvement and Development Agency, 2009). The programme was initiated by a citizen survey conducted by the Local Government Delivery Council (LGCD). The aim was to gauge user expectations regarding the processes or services related to death-reporting (Department for Work and Pensions, 2011). The result of the survey was translated into the form of a proposal, suggesting a transformation in this area of service. The proposal also suggested that local partnerships be set-up to design the programme, on the basis that it would potentially enhance social inclusion and citizen engagement, which were then laid down as the main principles of TUO (Local Government Delivery Council, 2009).

In the next step, the proposal was put to the test through pathfinders or pilot programmes at various English local sites (Fife Council, 2010). The aim was to gather as much input as possible from the potential stakeholders, such as the citizens, staff of the public agencies involved and the relevant non-governmental organisations, such as the Citizens Advisory Council. Such structure was also planned as an experiment for the proposed standard operating procedures and delivery channels, which successfully highlighted unexpected implementation outcomes. While the pathfinders were taking place, research by the Local Government Association was conducted to assess the programme's value in terms of government-citizen interactions.

The findings from both the pathfinders and research were synthesized to formulate a TUO programme by a proposal that was submitted to the government. Following the proposal, the government ordered an impact assessment to be conducted by the programme owner – the Department for Work and Pensions (DWP) – to assess the project's viability. While the DWP was acting as a coordinator or facilitator of such a study, various TUO stakeholders engaged in the real discussions, generating input across different perspectives and boundaries. The

positive result gained from such an assessment led the government to decide to roll-out TUO nationally in 2011 (Department for Work and Pensions, 2011). Two years later, TUO had achieved 98% customer satisfaction, delivering £22 million annual savings, and was named as the most exemplary public transformation initiative in the UK's PS history (RedQuadrant, 2014).

3.2.4 Next Generation Shared Service

The Next Generation Shared Service Programme marks the second attempt to consolidate and integrate back-office services (i.e. human resources, finance and transactions) by the UK government since the Gershon Review of 2004 (UK Government, 2012). The programme was mainly targeted at reducing the operational costs of back office services, in line with the public budget reductions, and increasing the raise customer experience, through the consolidation of repetitive transactions and the standardisation of processes with the help of ICT, as well as optimising government resource usage (National Audit Office, 2013; UK Government, 2012; HM Government, 2012). Managed by the Cabinet Office, NGSS involved restructuring the functions across 26 departments and arm's-length bodies (ALBs) that housed high volume standard transactions, such as the Department for Transport (DfT) (National Audit Office, 2016). The programme aimed to divest the Department for Transport (DfT) functions into ISSC-1 by June 2013 through the phased migration of DfT Business Units to the Provider's new solution, with the target of having all Business Units on the new system by October 2014 (DfT, 2013). As an executive agency in DfT, with a high volume of standard transactional operations, the Driver and Vehicle Licensing Agency (DVLA) was also included under such a programme. Overall, the NGSS programme was implemented based on five strategies, which include forming a Crown Oversight Function as a structure that co-operates with the departments to execute the programme, establishing two

Independent Shared Service Centres (ISSCs) that will operate with the customer departments in delivering services, and the sharing of best practices for benchmarking purposes.

The DVLA was established in 1965, and was formerly known as the Driver and Vehicle Licensing Centre (DVLC). The main role of the DVLA is to maintain a database of drivers' vehicles in Great Britain. Apart from that, the DVLA also functions as an agency supporting law enforcement, besides conducting road safety initiatives and intelligence gathering. In its early inception, DVLC services were run by 180 local registration offices, which were then trimmed down to 81 in 1971. However, in 2011, the DVLA segregated its services into two main areas, where 39 local offices provide over-the-counter services to around 2.5million customers annually, while the enforcement activities are carried out by ten regional centres (DVLA, 2011). Nevertheless, the move resulted in the under-utilisation of staff, which led to notable inefficiency and the wastage of operational costs.

Such an event triggered the DVLA to conduct a public consultation activity or survey. In the survey, the users, including citizens, MOT centres, insurance companies and car dealers, were asked which areas of the DVLA they would like to see transformed. It was claimed that there was a desperate need to transform the agency, as it interacts with 200 million customers yearly (DVLA, 2011). Although at the point when the survey was conducted, the DVLA had already diversified its channels for accessing services (i.e. by offering telephone and online license applications), the findings helped them further to transform their service offerings, making them more cost and speed efficient, as well as more accurate and convenient. The findings highlighted that service accessibility and ease of use were the areas where the respondents would most like to see changes.

The survey results were translated into a service design and execution plan, that included the drafting of an independent shared service centre's contract document. Next, a competitive dialogue between the shortlisted bidder, the DfT Board Investment and Commercial

Committee (BICC), and HM Treasury was held to select a contractor for ISSC. With the establishment of ISSC, DVLA announced the centralisation of its services and increase in online services, projected to save about £26 million of taxpayers' money yearly (**gov.uk, 2012**). The centralisation exercise resulted in the down-sizing of the service outlets in 2012, where the number of local offices, also known as the local office network, was reduced to 39. The closure affected 1,213 jobs. Nevertheless, early consultation and engagement activities with the affected staff and the union were performed, where they were offered relocation to the DVLA Swansea office or re-deployment within other public agencies. Despite the divestment of a number of branches, the DVLA offered three alternative ways of accessing its services: from Post Offices across the country, the gov.uk website, and the Swansea office (i.e. via physical contact or mail). The project was closely monitored by a designated team, which reported to the government or, more precisely, the Cabinet Office, on a frequent basis. A review in September 2013 then confirmed that the divestment, re-structuring and ISSC exercises were progressing as scheduled and budgeted (DfT, 2013).

DVLA's transformation successfully re-defined the meaning of public sector service effectiveness and efficiency, which resulted in the creation of an environment that facilitates interoperability, integration and intense collaboration among the DVLA's partners and stakeholders, and also improved access to its services.

3.3 Reflections on the Lessons Learned

The institutionalisation of DEST is never a simple process. The researcher argues that, unless the lessons learnt so far from the projects are analysed and taken into consideration in moving forwards, the institutionalisation of DEST in the public sector across the globe will continue to be at greater risk of failing. Hence, in this thesis, the researcher analyses the institutionalisation process of four large-scale Digitally-Enabled Service Transformation

projects in the UK's public sector to allow the reader to appreciate and reflect on these particular efforts, as lessons to be learnt.

3.3.1 National Program for Information Technology

- a) The creation of new government policies, such as the budget cuts and the Digital UK initiative, led the government to manage the funds allocated for NHS operations more effectively. Besides, in an independent review conducted in 2002, the NHS was required to optimise its IT capabilities through adherence to certain management standards. Hence, both - the new policies and the report were a trigger point for NPfIT initiation.
- b) In addition, the global trends in electronic service adoption, the advancement in technologies that facilitated the 'internet of things' and the change in the socio-economic landscape to drive demand towards more efficient and effective public services also pressured the establishment of such projects.
- c) As a strategic response, the NHS developed the NPfIT. NPfIT was aimed to increase the productivity and enhances the efficiency of the NHS, through the use of a single IS platform. NPfIT was designed to reform information usage among the NHS centres and integrate fractions of existing smaller systems in different NHS centres, which were contextualised as technological pressure.
- d) Evidence from the NPfIT showed that the 'top-to-bottom' approach of project implementation had increased the users' resistance to change, especially when the underlying project's objective and value are not properly communicated.
- e) The potential for reaching a common agreement is decreases in a large or highly institutionalised organisation. The NPfIT's stakeholders consist of many different

groups, ranging from healthcare professionals, clinicians and insurers, to politicians. As their actions were determined by their roles within the context of the NHS, practices vary.

- f) This implied the importance of having common understanding, in order to produce unified action that can facilitate the NPfIT institutionalisation process.
- g) An unsustainable political-will to push through the project contributed towards its failure, as the governing bodies shifted their direction when a new leadership assumed the decision-making power, due largely to political interests.

3.3.2 Digital Media Initiative

- a) The political and policies changes in the UK government forced the BBC to become a self-sustainable organisation. The situation was different from the early days, where the BBC was fully financed by the government.
- b) In order to support the BBC in face of these adverse economic conditions, the BBC management decided to cut the operational expenditure of their main business, this was the 'material production' process, by improving efficiency through the use of ICT.
- c) Such political and economic pressure caused the BBC to realign its ethos, from raising public-value to a business-centric organisation.
- d) The multi-layered structure of reporting procedures had discouraged the smooth flow of information during a DMI development exercise. Such situation had prevented the responsible team from reporting directly to the decision-makers. Majority of the critical issues regarding the DMI progress which demanded instant decisions and actions were not reported by the Steering Board to the Executive Board.

- e) Moreover, the absence of periodic review that should be exercised by the BBC Trust, who was directly accountable for all BBC programmes, exacerbated this problem. This had impeded knowledge of the relevant actors on the actual scenario with the project Furthermore
- f) The personnel's capacity and capability are important in supporting the programme's implementation. In such a case, the Steering Committee and Executive Board members were unable to interpret the risk or degree of impact of certain issues due to a lack of expertise in the subject domain, which resulted in zero intervention to curb peculiar issues from damaging the project.
- g) This signposts that appropriate template for actions are important to encourage the smooth flow of information across organisations. Actors' capabilities i.e. having sufficient level of knowledge of the subjects, especially the business process and technology are one of the key factors impeding BBC-DMI programme.

3.3.3 Tell-Us-Once

- a) The decision to develop TUO was made based on the painful and complex bureaucratic task faced by a bereaved family with regard to reporting a death, which is a social pressure.
- b) Such pressure took the form of public demand, and was channelled through a series of engagement sessions and town-hall meetings with the local authorities.
- c) In addition, the saving of government funds observed during the pilot project became a strong economic motive to implement the system.
- d) The TUO case demonstrated exemplary practices of how close collaborations with stakeholders could promote programme success. The setting up of a committee, that

consisted of central and local agencies' representatives, led by the Department for Work and Pension (DWP) in particular, provided an efficient platform on which to foster collaboration and engage with different views of the programme. Indirectly, the platform attracted users' buy-in to the programme, thus affecting the take-up levels during the actual implementation stage. The pilot programme also injected experience and confidence among the implementers prior to the programme's adoption phase. Thus, the programme obtained a high take-up level and overwhelmingly positive feedback from the public and local authorities, which directly contributed to its success.

- e) The implementation of a feasibility study through intensive pilot programmes (known as the pathfinders) across 14 sites in the UK had enabled the policy-makers to gather various feedbacks, which was then utilised to shape TUO.
- f) The involvement of various authorities and NGOs during the pilot stage provided a platform for cooperation among various groups and the channeling of feedback from different perspectives related to TUO improvisation.
- g) The adoption of the agile approach that was guided by the ROAMEF CYCLE (Rationale, Objectives, Appraisal, Monitoring, Evaluation and Feedback) model as outlined by HM Treasury in the "Green Book" had provided the project team with a clear framework for project management.

3.3.4 Next Generation Shared Service

- a) The transformation programme was largely influenced by public demand for 24/7 accessible services, as voiced during a public survey conducted by the Department for Transport.

- b) The survey involved multiple groups of stakeholders, such as personal customers, MOT workshop owners and car dealers.
- c) The motivation to innovate the services offered by the DVLA into digitally-enabled services was also rooted in the initial government plan to pool common government services into one shared centre in order to cut expenditure and increase public value.
- d) Being included on the national agenda and funded by public money, DVLA's transformation faced heavy pressure both politically as well as from the public at large, especially after the failed NPfIT experience.
- e) An intensive user engagement strategy prior to the actual programme's adoption contributed to the success rate. The same feedback gained from user engagement was also used as a basis for the DVLA to strategise and navigate its transformation plan, by taking into account not only the external customers' concerns, but also those of the internal customers and staff opinion. These views helped the DVLA and the government to prioritise their transformation actions, introducing intervention activities to combat any unintended responses by those who oppose the transformation.
- f) The establishment of a special SSP task force and dedicated monitoring board induced lean governance of the project, as it was closely monitored to ensure that it attained the expected goals within the deadlines and that the actors were engaged right from the beginning in ownership and knowledge about the project's build-up. Hence, when it was officially rolled-out, the new structure were externalised into practice, accordingly.

- g) The project's execution was enabled by the strong political will of the government. Therefore, the programme was closely monitored by the special team, who frequently reported to the central government.
- h) The stakeholders' buy-in played a vital role in facilitating the project. The main stakeholders involved were the implementers (DVLA employees), car dealers, motor workshops, insurers and other associations. Through public consultation, the stakeholders offered useful inputs, which helped the government to shape the DVLA system according to the actual demands of the users. Apart from the design, the feedback also helped the DVLA to strategise its transformation plan by taking into account not only the citizens' concerns but the internal staff's opinion as well. These views helped the DVLA and the government to prioritise their transformation actions, working out interventions to combat the unintended responses that were being triggered by those who opposed the decision to transform, and designing a realistic delivery model.
- i) The strong support by the employees was rooted in their satisfaction with the efforts made by the DVLA to mitigate the unemployment issue, caused by the restructuring of the DVLA. By offering employment options to the staff (redeployment to other public agencies or transfer to Swansea), the DVLA indirectly met any refutation at an early stage and obtained support from the employees' union regarding the transformation plan.

Chapter 4

CHAPTER 4 : CONCEPTUAL FRAMEWORK

4.1 Introduction

Chapter 3 discusses lessons that can be learned from the analysis of the past four cases of the large scales Digitally-Enabled Service Transformation (DEST) in the UK's public sector. Based on such lessons, this chapter elicits the key theoretical concepts indicating potential theories that could help to attain the research aim through a thematic analysis approach, before developing an analytical framework for this study.

The emerging themes are outlined in section 4.2. The themes lead to the identification of four potential theories, which are highlighted in section 4.3. Conceptualisation of the lessons learned from the cases highlighted in Chapter 3 against the four potential theories led the researcher to the selection of Institutional Theory and Structuration Theory as the conceptual lens for this research. The arguments on such selection were outlined in section 4.4. The Institutional Theory and Structuration Theory concepts were then operationalised to form a conceptual framework for this study. Such framework is presented in section 4.5

These processes were summarised in **Error! Reference source not found.**

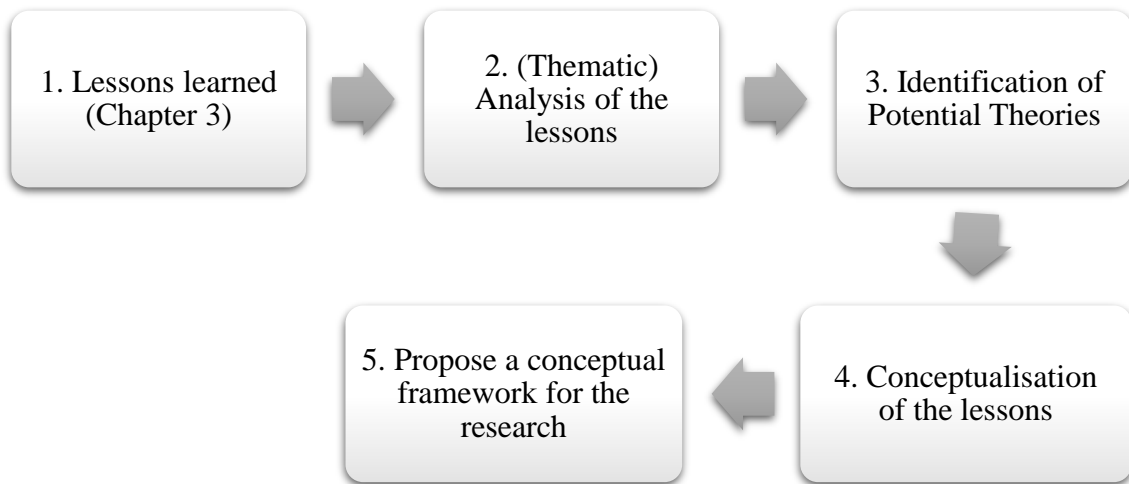


Figure 4-1: Summary of protocol involved in developing the research conceptual framework
(Own illustration)

4.2 Themes Emerging based on the Lessons Learned from the Four Cases

The use of the thematic approach helped the researcher to identify, analyse and report the patterns of data as themes that helps the data organisation and description, providing guidance to researchers on how to interpret different aspects of the data within the topic (Braun and Clarke 2006). As argued earlier, the institutionalisation of technology is inseparable from social actions. Thus, the utilisation of technology in a service transformation process should not be under-estimate. As such, the result of the thematic analysis on the lessons learnt from the four cases revealed the interlacing of explanations that falls under two broad themes, i.e. (i) the relationship between institutional pressures and DEST implementation; and (ii) the relationship between actions and structures.

4.2.1 The Relationship between Pressures and DEST Implementation

In at least two of the cases i.e. NHS-NPfiT and DVLA-NGSS, DEST projects are policy instruments that were prescribed by the central government or the policy-makers as strategic responses to institutional pressure. Whereas in the case of BBC-DMI and TUO, the demand from the stakeholders towards more efficient service formed pressures that also trigger strategic responses by the organisations. Such responses are vital in order for both the institution and organisations to remain legitimate in its environment and accepted by other organisations within the same environment (DiMaggio and Powel 1997). Jun and Weare (2010) posit that pressure is the factor that determines the success of any innovations introduced by any organisations, with external pressures having a greater impact on outcomes compared to internal pressure. This pressure takes a multitude of forms, such as technological advancement, economic conditions, the politic and socio-economic landscape, and the demands of shareholders and employees, as well as competitors. Although public institutions face relatively similar types of institutional pressure (i.e. politic, economic, social and technological), that drives the introduction of DEST, and the dominance of each pressure varies.

4.2.2 The Relationship between Actions and Structures

4.2.2.1 Actor's Logic and Value Implicate Actions

According to Thornton and Ocasio (1999, pp 804) institutional logics is 'the socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality.' Hence, institutional

logics determine the ability of the institutional actors to act and think, as well as how they perceive norms and rules in the institution.

For instance, the achievement of common agreement among the actors in NPfIT context was hard due to conflicts of logics. The evolution from professional dominance era to NPM had deterred the decision making process in the organisation. During the professional dominance era, every decision was made based on the judgement of the professionals in the NHS. These professionals adhered to the public-ethos, i.e. a logic that made them think they should do anything within their means for patients' benefits, even if such will incur a huge cost to the NHS. Nonetheless, NPM forcedly reformed a new logic i.e. 'value for money', which was against the existing logic. The competing logics were unaligned with the NPfIT's objectives, thus creating a barrier within the adoption process. Such had raised conflicts in among the actors, which resulted in adoption resistance that lead to the abandonment of the NPfIT.

4.2.2.2 Efficacy of Actions

The efficacy of actions determines the outcome of DEST implementation. Thornton and Ocasio (2008) argue that action efficacy is determined two factors: (i) the knowledge that the actors have on the action (e.g. action objective, implication and outcome); (ii) the power that the actors have to control the actions and resources needed to facilitate them. Efficacy of actions is also referred as the "agency" (Thornton & Ocasio, 2008). Agency arises when the actors apply their existing knowledge to a new context or situation, as well as when the actors mobilises resources to accomplish tasks. As such, agency entails the actors' ability to coordinate their actions, as well as the actions of others. Agency is In the four cases, the evidence of agency could be observed in the actors' attempts to govern the project, to form collective actions in the projects, to persuade others to perform the

desired actions, to coerce actions, as well as to monitor the activities. In the context of the derailed past DEST cases, the deconstruction of agency had impeded actions efficacy.

The NPfIT case demonstrates this argument in several instances. The absent of knowledge of the existing NHS system had impeded the contractors from developing a system that is able to be operated within the NHS IT framework. The existence of thousands of fragmented systems residing on the diverse information system's backbone, which were owned by different parties, had increased the complexity of the NPfIT integration process. Most of the sub-systems were not identified during the NPfIT design stage. This issue led to the caused incompatibility of the IS backbone and continuous changes in the technical specifications, which disrupted the implementation process. Besides, the contractors' lack of knowledge on the public institutional structure, especially the national healthcare system had hampered the NPfIT design. As a result, the NPfIT's design was business-oriented, rather than practitioner or patient-centric.

Meanwhile, in the case of BBC-DMI, the lack of expertise on subjects, especially the project management and television programmes production process among the steering board members had disabled them from understanding the implication of certain issues that emerge throughout the DMI development. As such, no intervention was performed to curb the particular problem from spreading. On the other hand, the less project-capable Executive Board members had failed them from gauging the project status as well as the risks of issues that were reported to them.

4.2.2.3 Understanding Promotes Actions

It was learned that the actors' interpretation of the DEST value towards the organisations and the groups that they serve shaped the actors' responses. Hence, the homogenous interpretation of meaning is critically important to generate consistent actions, as desired

by the DEST initiators. For instance, the NPfIT was viewed as a tall order. This was because the system development did not involve requirements gathering from the NHS actors. Instead, the system was developed based on the specifications that were prescribed by the non-NHS actors, including the contractors that were unfamiliar with neither the NHS system nor the public institution structures. Thus, NPfIT's scope was misrepresented, and hence unable to fit into the existing NHS structure. The underestimation of the operational risks during the pre-development stage had also caused the NPfIT to consistently miss the project milestones. Besides, the NHS actors' demands for user-engagement sessions and the feedbacks that were channelled to improve the system were not address. Hence, the NPfIT was perceived as merely a central government's order, which destroyed the sense that it belonged to the system among the NHS members that further increased the resistance to NPfIT adoption. The absence of effort to communicate the value, such as training and engagement with the DfH representatives, also contributed towards the project's failure.

In TUO case, the adoption of ROAMEF cycle and the collaboration among the stakeholders not just enabled the design of a well thought-of programme, but also had empowered the actors with various resources, which helped them to coordinate better actions. Besides, the clear division of the project management stages (i.e. pre-implementation, implementation and post-implementation) with distinct milestones of the required actions had established common understanding among the project actors.

4.2.2.4 Empowerment

Empowerment is another key theme that has been observed to be a factor that can facilitate or impede the transformation process in the four cases. In this context, empowerment means the allocation of a certain degree of power to selected stakeholders

that will facilitate the decision-making exercise, requiring the allocation of organisational resources and facilities, such as money and people. In the case of DVLA-NGSS and TUO, the respective departments and local authorities were given the power to set up call centres (for DVLA) and advisory units (for TUO) as support structures during this transformation process. Moreover, the materialisation of the approved concept of forming new entities as the partial-outcome of the project or programme showed that the decision-makers had determinedly exercised their authority to allocate a certain budget and manpower in order to facilitate the institutionalisation process. Therefore, empowerment is another issue to be addressed with care when facilitating a DEST institutionalisation process. The actors at different levels should be empowered and given authority or access to certain degree facilities, to help them to form the correct structures to facilitate the institutionalisation process.

4.2.2.5 The Importance of Template for Actions

On top of that, it is important for the project owner to mould the desired norm that can help the other actors to determine the correct practice and behaviour to adopt throughout the institutionalisation process. Taking the example of TUO, a user manual was produced by the actors involved in the pathfinder programme, outlining beneficial information on TUO. This information was gathered from experience and the lessons captured throughout the pilot programme across different sites by actors in different roles. In addition to helping the actors to intervene when undesired behaviour was spotted during the actual programme implementation, this document (as a structure) helped to shape the acceptable practices and norms within the TUO context and eliminate certain practices prior to the programme's implementation.

4.3 The List of Potential Theories

The themes emerging from the lessons learned were used to identify potential theory to be used to develop a framework for DEST institutionalisation analysis. Noting that the two themes refer to institutional-level structures and actors' determinants, the potential theoretical lens for analysis must accommodate all probable angles that could influence the project implementation in relation to these institutional level elements. This Institutional level perspective must also lead to an understanding of how each element can trigger change, influence DEST project implementation and help the projects to be promoted as part of the organisational culture.

Considering these parameters, a list comprising of the four theories that could possibly explain the events that occurred during DEST was drawn. It includes Institutional Theory (IT), Structuration Theory (ST), Adaptive Structuration Theory (AST) and Actors-Network Theory (ANT). These theories were then compared in terms of their usability and unit of analysis, followed by reflections that conclude their application in this study. The results are summarised in Table 4-1

Table 4-1: Summary of a comparison of the four theories

(Own illustration)

<u>Institutional Theory</u>	<u>Structuration Theory</u>
<p>Institution is a product of actions-structures interactions, BUT does not explain how it happens (Scott, 2014; Tolbert and Zucker, 1999).</p> <p>IT Provide insights on why organisations experience change and how such change is institutionalised through the isomorphism process (conformity to external pressure).</p>	<p>Institutional structures emerged, regenerated and modified by the agents through actions, to comply with institutional requirements (Giddens, 1984).</p> <p>Structure and agent are given primacy in its analysis, allowing an exploration of the repetitive interplay between the two and their role in forming institutionalised practice</p>
<u>Actor-Network Theory</u>	<u>Adaptive Structuration Theory (AST)</u>
<p>The theory agreed that technology is socially constructed against robust networks of actors (Latour 2005).</p> <p>The key concept is that both human and non-human actors have the same capacity to construct and maintain networks, thereby limiting the potential to explore the distinctive roles of the actors and structures, and the cause-effect relationships of the two in the institutionalisation process.</p>	<p>Technology incorporates the original concept of the structure, and acts as an agent shaping the actions, albeit actions shape the technology (DeSanctis, and Marshall 1994)</p> <p>It requires distinctions between the social structures residing in DEST and social structures residing actions, which is a relatively impossible and complex public institutional setting.</p>

4.3.1 Institutional Theory

This theory explains how institutions are affected and shaped by various forms of internal and external pressure, namely politics, socio-economics, technology and organisations, as a result of their interactions with the environment, to achieve a legitimate status – a status of being widely accepted by the majority in the environment. Constructed from four main aspects – institutional logics, institutional fields, institutional pressures and the isomorphism process – the theory posits that organisational culture or belief, as imparted through institutional logics, determine how the organisation is and should be, thus progressively shaping the organisational culture and beliefs. It also explains that the desired state will materialise and be embedded as part of the organisational culture, following several steps: Firstly, it has to complement the values, rules and beliefs of the organisation’s inhabitants,

where compliance will eventually lead to organisational acceptance. This acceptance will then facilitate repetitive actions by the inhabitants, until a routine is formed. This routine will then shape a habit, which is a stage whereby an action will be ‘taken for granted’ by the institution or its actors. This is the final stage where an action is institutionalised.

Institutional Theory can provide insights on how organisations should behave and what should constrain their actions. However, it does not provide an avenue for a detailed explanation of the roles of the institutional inhabitants (human actors) and constraining elements (structures), such as rules, procedures, financial resources and human resources, as the main organisational elements in constructing new beliefs or actions or re-enforcing them to allow desirable outcomes.

4.3.2 Structuration Theory

Structuration Theory, ST is a lens that can be used to reconcile the division between structure and agency in the social sciences by re-conceptualising the two (structure and agency) as a mutually interacting duality (Jones, 1999). Structure refers to rules and resources that govern an individual’s behaviour and actions to produce the meaning of an action within an organisation or society. This structure enables and constrains human action and, as explained by Giddens, action is a stream of actual or expected causal intervention by human beings in an ongoing process of events (Giddens, 1979, p. 55). In his writing, Giddens emphasises that action represents the transformative capacity of human agents to cause interventions in the events surrounding them, while structure represents both the medium drawn by human agents in their action and also the outcome of such action, which are termed by Giddens the “duality of structure”. The duality of structure encompasses three fundamental dimensions: signification (how something can bring meaning to the actors/structures), domination (how power can be exercised, allowing the agents to control other actors or structures), and

legitimation (how norms affect the external context, conditions, and potential results of an action). Each of these structural dimensions interact with the agency dimensions, namely communication, power, and sanctions, through a ‘line of mediation’ (technically known as modalities), that are resources and norms. These modalities are the media through which structure is realised in human action (Baert, 1998).

In a nutshell, this theory could help to explain how the interplay between the actors and structures could enable and constraint actions, and how the interplay over a period of time can form a routine action in any social context.

4.3.3 Adaptive Structuration Theory

Adaptive Structuration Theory, AST is adapted and augmented by researchers interested in the relationship between technology and social structures. Normally, it is applied to increase the understanding of how technology is used with respect to “modalities”; for example, the organisational institutional features and employees’ perception of IT influence the work processes and performance. Focusing strictly on technology and social structure, the theory concludes that individuals modify or adapt technologies in alignment with their organisational beliefs (modalities). Since AST limits its focus to technology and social structure, its application in this study would permit limited elaboration and examination of the institutional elements in a unique organisational setting, such as the public sector.

The theory concentrates on the activities of knowing agents as they interact with, reinforce, and reconstruct the artefacts of IT (individual and organisational structuration), neglecting the structuration processes through which particular types of information takes place. Therefore, the theory overlooks the broader institutional environment’s influence on how individual organisational actors construct the meaning of

information and IT. In light of this gap, AST may not be an appropriate conceptual choice for the study of DEST.

4.3.4 Actor-Network Theory

Actor Network Theory, ANT focuses on understanding how technology and society function relate to each other. In other words, the theory explores how the networks between technology and society work to influence each other to produce an artefact (Ziemkendorf, 2007, pp.1-2 cited in Hooper, 2012). In doing this, ANT considered objects as part of non-human actors that constitute the social networks together with the human actors. It, thus, insists on the capacity of the non-human actors to act or participate in the social systems, thus taking the actors (objects and human) and social networks as the unit of analysis by focusing on the associations, or agencements of actions. In essence, the theory explains how the different combinations, or the medium of forces, organise and influence each other, giving the power-influences properties to objects, rather than limiting them to human intention. The central tenant of ANT is to rearrange the power networks to include material objects and their associated effects upon humans. The theory also looks at how newly-created associations can create new actions between humans and actors and in doing so, measures the actions that take place as the key change in power, regardless of the intentions behind them. This power of association is measured in terms of its ability to give and take power away. By emphasising power within the rearrangement of the actors, ANT also shows how power is most effective in its 'silent' form. However, the theory does not usually explain "why" or "how" a network takes the form that it does, but rather thoroughly explores the relational ties within a network, which can be a multitude of different things.

4.4 Selection of Theory(s)

The lessons that are elucidated show clear signs of the development of institutional characteristics, which are related to structure and actors, which eventually lead to organisational capacity and capability, better known as agency development. Considering the fact that Institutional Theory (IT) could provide explanations about how pressure, particularly technology, can trigger changes in organisational culture and belief, IT is best used to analyse the influence of the internal and external environmental elements on the organisation that could trigger the need for change. It also allows an understanding of why organisations that behave in conformity with definite patterns, besides believing and upholding certain values, could possibly facilitate or impede the change process through an isomorphism process.

Institutional Theory explains that an organisation's response to change is subject to its structure and actors, and a technology is said to be institutionalised when it becomes part of the routine of the organisation's inhabitants. The theory discusses three distinct models of institution – the regulative, the normative and the cultural cognitive – that describe how social actions become institutionalised in a social context through different approaches. These models discuss in detail the specific basis of compliance, diffusion mechanism, logics type, indicators, responses and legitimacy foundation of each approach. Though the models spark debate on the different approaches of institutionalisation, this does not provide a detailed explanation of the isomorphism process, in which actions recur as a routine-forming habit among the actors before finally being widely accepted as part of the way of doing things in the organisation (taken for granted actions). Moreover, the roles of the actors and structures in building the agency's capacity and the interplay between them to institutionalise change are not dissected in IT. On the other hand, ST emphasises that the implication of recurring interactions between the institutional structure and actors will form a new routine within an organisation, which eventually shapes a new institutional structure that helps to

build up the agency capacity. In DEST, technology, which is a resource and part of the organisational property used to signify practice, is perceived as a structure, while all of the human inhabitants, internal and external to the organisation, are the actors. Since Giddens (1984) suggested that the inter-relationship between these two is inseparable in the analysis of a social process, hence the analysis of both elements should be considered in DEST.

The interactions produce both intended and unintended consequences that shaped new structures (such as new practices, rules or values) to cope with the changes and build-up agency, which is the organisation's capacity to react to changes naturally. As the routines continue, the practices become institutionalised (Veenstra *et. al*, 2010). Structuration Theory provides an avenue for the discrete explanation of how these phenomena emerge and are reinforced by courses of action that happen over time before they become routinised and finally embedded in the organisation as a new culture or belief through structuration events, which is a state of being institutionalised (Jones and Karsten, 2008; Robey and Newman, 1996). The theory also illuminates how the interplay between structure and human interactions are mediated by a range of components and how these interactions translate each event into a sequence of meaningful actions that modify the existing structure of public services, thereby complementing the lens of IT.

Drawing on the literature and the cases examined, combining IT and Structuration Theory as a lens offers the correct framework for identifying, analysing and conceptualising the challenges and complexities that contribute towards the outcomes (i.e. success and/or failure) of large-Scale Digitally Enabled Service Transformation projects.

The institutional issues that emanated from the four cases offered convincing evidence to explain the fate of those projects, causing some cases to succeed and the others to perform below expectation. However, to explore the causal-effect relation in those scenarios, the application of the correct theoretical framework is vital, as this will offer guiding principles

throughout the analysis process. Considering the institutional-level issues as the main subject, the discussion offered previously on the potential theories suggests that the choice of theory must accommodate the analysis of all components from the institutional perspective, including the emerging themes of motivators, drivers, enablers, and process. Institutional Theory offers enlightenment on pressure, which is the element that may generate the motives to transform, and the isomorphic mechanism, which explain what will be influenced and how the transformation process occurs. On the other hand, Structuration Theory articulates how an action can be embedded in any social structure through the build-up of agency that happens due to the interplay between the structure (as action enablers) and actors (as the drivers of action). Based on this argument, the two were selected to form a conceptual lens that would later be used to analyse the lessons drawn from the cases, thus providing a meaningful explanation of their occurrences and generate a better understanding of the institutionalisation of DEST in the public sector.

As more government services are being made available online, not only must the relationship between the citizens and government change but the government must also restructure itself in order to facilitate the evolving relationship. The increasing degree of complexity necessitates extreme coordination, as well as a greater level of horizontal and vertical integration among government agencies. As dramatic structural change could lead to unintended consequences, intensive moves towards greater integration, both horizontally and vertically, are of paramount importance in order to minimise the risks associated with large-scale change projects involving ICT. However, deeper integration appears to be more vulnerable, as it involves various entities, human actors and roles. Thus, all interplay occurring at every stage should be carefully scrutinised to promote understanding of the role of every actor and the unintended consequences that may impede the success of digital-enabled changes must be constrained.

Institutional Theory focuses on the more resilient aspect of social structure, by considering processes whereby structures, including schemes, rules, norms and routines, become established as authoritative guidelines for social behaviour (Scott, 2004). The diverse components of Institutional Theory explain how these elements are created, diffused, adopted and adapted over space and time. Structuration Theory suggests that human agency and social structure are related to each other, and it is the repetition of the acts of the individual agents which reproduces the structure (Giddens, 1984).

Looking at these perspectives, the use of ST and IT as a conceptual lens in a digitally-enabled transformation programme is justified. Both theories would provide an understanding of the implementation process of digitally-led services, through the recognition of the interrelationships among the institutional elements or structure (consisting of rules and resources) and the human actors, and how the outcomes of these interactions at every stage either facilitate or impede the implementation process.

4.4.1 The Institutional Paradox

The Theory of Institutions explains the production and regeneration of habits that eventually form routines in social settings (Zucker, 1987). Institutional theorists are concerned not just with individual habits, but also with habits that are generalised so that all of the actors in a social setting accept the habit as the appropriate way to behave in relation to a recurring situation (Zucker, 1977, 1986). Habit will reduce the need for cognitive effort, due to its tendency to follow the 'normal' or accepted way of doing something, rather than individuals having to think through a response to each event encountered (Berger and Luckmann, 1967; Schutz, 1962). The repetitive habits that develop over time will then form a routine and be perceived as natural practices, which are finally institutionalised within an organisation (Tolbert and Zucker, 1996). This idea was supported by Tolbert and Zucker (1996), who

describe the process of institutionalisation in three sequential steps: (1) habituation (the formation of patterned problem-solving behaviour and the association of such behaviour with particular stimuli); (2) objectification (the development of general, shared social meanings attached to these behaviour, in which phase it is important to disseminate the actions to a context outside their origin); and (3) sedimentation (externalisation of facts and routines).

To describe this in greater depth, scholars have divided the variants of institutional views into two types: the macro and micro perspectives (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). The macro type focuses on macro isomorphic processes, where institutionalisation is seen as part of the vast number of environment properties that constrain selection and induce the convergence of behaviour (practised as culture) throughout the organisation. In another setting, the micro 'institutionalist' focuses on the micro processes that take place internally, through which practices become organisational habits.

In this research context, however, the micro institutional perspective seems more relevant, as the fact that institutionalisation limits the options and thus encourages the assimilation of the new practice in the organisation is undeniable (the macro institutional perspective). Notwithstanding that these two views complement each other in providing an explanation of the development of institutionalised practice, this study will utilize both paradoxes in the analysis process.

Institutionalisation is the process by which organisations affirm themselves and achieve legitimisation as a consequence of their alignment and compliance with the institutional context of their environment (DiMaggio and Powell, 1983; Meyer and Rowan, 1977). In a study by Scott (2001), it was revealed that institutionalised behaviour was being developed and affirmed based on three pillars: regulative, normative and cultural-cognitive, which were described as 'the building blocks of institutional structures, providing the elastic fibre that resist change' (p. 49). These pillars are infused by certain logics, depending on the value and

belief of the inhabitants in the institutional fields. Although, in most cases, the institutionalisation of DEST was imparted by a third pillar of ‘Cultural cognitive’, that emphasises the role of cognitive processes in the development and transmission of institutionalised behaviour, the Regulative and Normative pillars had consistently demonstrated their influence on the four cases examined (NPfIT, TUO, DMI, DVLA). The prevailing character of cognition and culture as the institutionalisation vehicles was dominant because people perceived culture as vigorous and subject to definition and classification, argument, and negotiation (Douglas, 1982 in Scott, 2001), despite the adherence to moral principles or professionalism for accreditation, and devotion to a regulative framework.

Hence, in determining the roots of institutionalisation, understanding the concept of the institutional field and logics, institutional pillars as well as the institutional pressures and process, is fundamental.

4.4.2 Rational and Reasonable behaviour: The Concept of Institutional Field and Logics

Human inhabitants of social construct, or actors, each have an interest and individual capacity for action according to their social construct, where the choice is determined by the logic behind their social actions (Scott, 2014). Actions are used to emphasise or give meaning to one’s own or others’ behaviour. However, before an action is executed, naturally, the actors would start their cognitive process by asking if the action is necessary or, put simply: is it rational? Several theories have emerged around the argument of the implied principle adopted in determining the rationality or logic underlying actions. Scott (2014) listed four dominant ones: (1) the **atomist view** – action is determined by focusing on maximising returns when people know exactly what they want and have complete knowledge of the available alternatives as well as the consequences following the action; (2) the **neo-institutional analyst view** – believes in the model of bounded rationality that explains that

actors are “intendedly rational, but only boundedly so”, implying that actors always do their utmost best to satisfy their wants; (3) the **rational choice theorist view** – sharing the same paradigm with the neo-institutional analyst, these theorists view an institution as a regulative framework, where the institution is constructed to regulate the behaviour of oneself and others, plus responses are driven by sanctions as well as incentives; and (4) the **sociological theorist view** – action is “a calculus of cost and benefit”, where “ends are modified by means, that ends emerge in ongoing activities and even the means can become ends”, based on the argument that, during any interactions, actors will include their social structures and in turn the social structure includes them, thus producing norms, rules, beliefs and resources as the products of the interaction. All of these views suggest that all actions involve the selection of the means and determination of the directions to achieve certain values, which later sparked a debate between instrumental and appropriateness logic and how they drive actions. According to Scott (2014), instrumental logic will seek individual interest in certain actions, while appropriateness logic reflects choices of action that one can make considering one’s relations and obligations to others in the situation and the moral principle of that particular social context, thereby setting limits to instrumental logic, that is individualistic in nature.

Framing this knowledge, as a first step to analysing the lessons learnt from the four selected large-scale DEST projects, focus will be placed on institutional logic, which would lead to justifications for actions taken, that may later provide clues regarding the next level of analysis.

The evolution of the different eras of NHS governance since its inception in the 1940’s has seen it embedded with various organisational logics. The existence of various actors in the institutional field – NHS doctors, general practitioners, nurses, healthcare workers, administration staff, suppliers, insurance companies and patients – brought about multiple

values and beliefs in the NHS, which are hard to define by exact boundaries. The demarcation line between one value/belief and another constitutes only thin boundary lines, which are the roles of certain groups of actors in the organisation and the regulations with which they must abide (which is a valid description of **appropriateness logic**). This logic started to develop during the ‘Professionalism Era’, at the inception of the NHS. During this era, the actors were free to define their own structure and practice, that facilitated their work processes. The general practitioners, nurses, healthcare workers and particularly doctors provided treatment to patients based on their medical needs, rather than evaluating it against NHS cost implications. The patients were recognised as the top priority, above the financial consequences aspect, causing the allocation of an annual £70 billion operational fund that was consistently being debated by politicians, the media and other citizens. This ‘public service ethos’ was partially induced by the growing relationship between the professional bodies, such as the medical associations and NHS doctors. The body, which was governed by their profession’s code of practice and conduct, had developed distinct moral principles and codes of conduct among the doctors – which was later infused across the NHS as practice. This recurring practice later became a norm, and was acknowledged by the general population of the NHS as an embedded formal structure. Across this timeline, the NHS moved from a ‘professional era’ to a ‘managerialism era’, where the imparted ethos was triggered by good practices in other organisations, due to benchmarking exercises. This trigger, combined with the prevailing logic, brought about changes in the NHS, where the actors decided to start using an information system (IS) in their work process. As the actions tied to this logic were highly context-oriented, the usage of IS in the NHS ended up breeding hundreds of fragmented systems, which were developed on different platforms and tended to be locally-based. Thereafter, when the government started to appoint managers to operate the NHS, cost was made the highest priority against the existing priority – the patients. This era

was called the 'Market Mechanism Era', and it was the era during which the NPfIT was born. Utilising the instrumental logic concept, the NHS managers then began to evaluate the cost and benefits for the NHS before implementing certain actions, causing the obligations to the patients to be degraded. This situation caused a conflict of logics among the institutional actors. Hardly accepted by the old-school of thought, the actors then created mental blocks to the adaptation of the new systems and practices, thus impeding the institutionalisation of the NPfIT in the NHS and resulting in its ultimate failure. Barriers arose due to the contending institutional rationales that introduced conflicts of aims, objectives and priorities in the NHS. To some, the aim was to achieve a public ethos, so professionalism and self-regulation became necessary while, to others, the point was to accomplish a private-ethos, so performance was the priority and patient-centredness was secondary, and raising public value became the main agenda. This situation discouraged a priority-linked decision-making process, where the decision-makers are required to choose the priority - a decision that would be influenced by individual logic. At this point, imparting the correct ethos to blend with the social constructs and settings was vital, as it would provide the backbone of behaviour and its subsequent actions.

4.4.3 Institutional Actors, Structure and the Isomorphism Process

In a study by Elbardan (2014), a few of the criticisms of the studies that adopted Institutional Theory were summarised. Among other things, it was stated that the studies viewed organisations as passive actors in responding to pressure, and also treated organisations as homogeneous, singular actors. Therefore, this study will try to combat these critiques by acknowledging that the institutional actors are active agents in the modification of structure, and are not homogeneous, even though they reside in the same institution.

Welsham (2002) summarised Structuration Theory as a description of the nature of human action and social organisation, where human action and social structure are treated as two aspects of the same whole (a duality). This argument was developed based on the definition provided by Giddens (1984, p. 377) of structure as “rules and resources, recursively implicated in the reproduction of social systems. Structure exists only as memory traces, the organic basis of human knowledgeability, and as instantiated in action”. Both arguments implied that structures are rules governing behaviour, with an ability to manipulate resources which are internally located in the human mind. Thus, the actions taken by individuals are constrained by these pre-existing rules and resources (that Giddens termed ‘structure’), and that action simultaneously produces a new structure or reinforces an existing one in the mind as the basis for the next action. For instance, in the NPfIT case, when the healthcare practitioners abandoned the NPfIT by refusing to use the system, they were drawing on the concept of the usability of the system, using the rule that the decision-makers should have included their requirements before developing the NPfIT. In addition, the perceived ability of the practitioners to manipulate the resources represented by the NPfIT offers further grounds for them to caution the decision-makers against discounting their opinions. Therefore, in carrying out this action, the healthcare practitioners and decision-makers have the structure of these rules and resources reinforced in their minds as the standards of appropriate behaviour.

Human action and structure in the mind are composed and the dimensions are inextricably interlinked. In the given example, the power to caution is linked to the concept of accommodating the user requirements and the norm of what it means to be discounted. This may seem obvious, but norms of behaviour vary widely between social contexts, as they contain various cultural norms and logics. As the result of these different “things in the mind”, the interpretation of the actors regarding appropriate behaviour varies, thus leading to conflict in cross-cultural settings and threatening the institutionalisation of change. This

conflict is rooted in the divisions of interest within and between social groupings due to structural contradictions, which negatively affect the actors. Noting that a person reflexively monitors his/her own actions, including the results of these actions (both intended and unintended), if an action is taken and the result viewed as unintended or negative, then a change in the structure of the mind will take place, leading to the possibility that the individual will take different actions if they encounter the same situation again in the future (Welsham, 2002). This is exactly what happened in the NHS, where the existence of various institutional logics caused the actors to perceive different things as a priority in executing their function, which led to a conflict of interest that meant that the practitioners abandoned the use of the NPfIT (as a response to the contradiction within the pre-existing structures and different ethos), and thus the project implementation failed.

The study of a digitally-enabled system as part of information system artefacts using Structuration Theory is justified, “as the system embodies interpretative schemes, providing coordination and control facilities, and encapsulates norms” (Welsham 2002), which implies that the association between social action and structure through interaction reinforces or changes the social structures. This situation reflects a meaning whereby structure is “in the mind” so its links to action can be analysed through the dimensions of meaning, power, and norms.

Digitally-enabled services aim to equip service delivery with time and cost efficiency through integrating multi-department services into a single channel. The systems are built with the conception that they will fulfil the demands of the needy, particularly the primary system-users, through a variety of approaches. Unsurprisingly, in all cases, the systems are usually initiated by the top policy-makers in the organisation and forcibly executed by the far lower-ranked staff of the same organisation or, in the worst case, of another organisation. Due to the varying views, experience and practices of people from different backgrounds and levels of

the organisation, the capacity and capability between the two levels often sparks tension in implementation that may possibly impede the system's success.

4.4.4 From Deinstitutionalisation to Institutionalisation

Although technology forms the backbone of all the DEST projects, a single-sided view, implying that the projects merely represent the technological aspect of transformation, should not be applied. In a living context, DEST will shape and be reciprocally shaped by other institutional elements, which are the institutional culture that determines the organisational norms and values, and the institutional facilities that regulate the use of DEST in the organisation. Misunderstanding this concept will lead to an excessive focus on the technical imperatives of DEST, thereby neglecting the links between it and others areas – which could also result in the automation of unnecessary functions and the setting up of unrealistic outcomes of projects (Baptista, 2009). For example, the implementation of the NPfIT in the NHS aimed to promote productivity and reduce the complexity of its operations, that would result in more cost-effective services. Since technology is inherently collaborative in nature, this expected outcome were not achieved in the NHS, despite being equipped with several 'tools' and information systems (through the NPfIT project). A key lesson here is that higher productivity could only have been achieved if the NHS's daily work-practices (norms) and doctors' values had changed accordingly to accommodate the NPfIT's implementation.

From a macro-level perspective in Institutional Theory, various environmental factors can put pressure on organisations, such as politics, social issues, economics, legal frameworks and technology. Since the implementation of DEST is often influenced by economically-oriented motives, such as reducing government expenditure and enhancing the effectiveness and efficiency of services (such as in NPfIT), economic, social and technology motives are more closely linked to the source of pressure compared to other triggers.

Hoffman (1997 in Scott, 2014) summarised that institutions are constructed as three pillars: regulative, normative and cultural cognitive, which form a continuum that moves “from the conscious to the unconscious, from the legally enforced to the taken for granted”. In a stable situation, persistence and reinforced practice can be observed, as these are taken for granted, socially-validated and regulatory-backed. These pillars provide support to the systems within the institutions, as well as act as the roots for developing and sustaining institutionalised behaviour.

Aligned pillars result in strength and stability, whereas misaligned pillars can cause organisational imbalance and a state of illegitimacy, thus motivating different choices and actions to be taken by the institutional actors for different ends (Scott, 2014). This situation is called deinstitutionalisation and triggers institutions to make changes (Scott, 2014). In his book, Scott (p.166, 2014) refers to deinstitutionalisation as “the process by which institution becomes weaken or disappear”, where current institutionalised practices become dysfunctional, unattractive and fragmented beliefs/practices of institutions that operate in an institutional environment. Zucker (1988, via Scott, 2014) associates this phenomenon with the “modification of rules under the pressures of varying circumstances”.

According to Sine and Tolbert (2006), the change of practice in an organisation projects the symptom of the early deinstitutionalization stage, and the outright abandonment of certain institutionalised practice illustrates the case of extreme deinstitutionalisation, while gradual deinstitutionalisation lies between these two scenarios. DEST, in this context, is a strategic response to institutional pressure. The introduction of DEST would deter an institutionalised state, thus affecting the legitimacy status. Hence, to regain stability and legitimacy, institutions must undergo an institutionalisation process that involves the modification or production of new structure and practice, through a series of interactions between the institutional structures and actors, known as the structuration event. During this process,

institutional principles are enacted on the actors through scripts. The enacted scripts are interpreted by the actors according to their own sets of values, norms, and beliefs, that form the principles guiding their actions. Based on this principle, the script is replicated or revised, thus reinforcing or modifying the structure accordingly. This process would occur repeatedly, until the desired structure and common practice are achieved.

Applying such a principle, a conceptual framework is drawn to clarify the interactions among the pressures, actors and structures and identify which elements play a more crucial role in a particular context, therefore guiding the institutionalisation of digital-enabled service transformation in an effective manner.

It is suggested that defining the factors from different levels facilitates the understanding of macro and micro level elements that trigger service transformation.

4.4.5 Structuration Theory: The Action – Structure Relationship

Structuration Theory (ST) originated in the field of sociology and aims to explain the emergence of social phenomena (Veenstra, 2014). ST holds that human actions as well as the social structure shape social phenomena (Giddens, 1979; 1984). In a nutshell, Giddens's theory of structuration notes that social life is more than random individual acts, but is not merely determined by social forces. Giddens (1984) suggests that human agency and social structure are in relationship with each other, and it is the repetition of the acts of the individual agents which reproduces the structure. This means that there is a social structure - traditions, institutions, moral codes, and established ways of doing things; but it also means that this can be changed when people start to ignore, replace, or reproduce it in a different way.

To Giddens (1979; 1984) and Hond et al. (2012), three central concepts of ST are *duality of structure*, *actor's knowledge* and *time-space relations*. *Duality of structure* connotes that structure (consisting of rules and resources) constrains human action, and simultaneously, as the interactions persists, human actions serve to maintain (preserve the existing one) or modify the structure (a new ones emerges). *Actors*, in Giddens' view, shape phenomena voluntarily, which means that they are knowledgeable about their actions, which they execute according to goals of which they are aware (Giddens, 1984), and *time-space relations* refer to the notion that social activities are situated in a specific time and space, and cannot be easily disconnected from their context and transferred elsewhere (Hond et al., 2012).

To understand this theory, a heuristic definition of an institution is a prerequisite. Resembling Giddens's (1984:2 377) notion of structure and Swell's (1992) idea of schema, Barley and Tolbert (1997) define an institution as *shared rules and typifications that identify categories of social actors and their appropriate activities or relationships* (see also Burns and Flam 1987). This definition provides a link to practices and behavioural patterns, as the root of the activities of the social actors. Though practices and behavioural patterns eventually lead to institutionalisation, not every condition of practices and behavioural patterns are equally institutionalised, as institutionalisation requires a wide and deep acceptance by the members of the collective regarding the practices and behavioural patterns that take place over time (Tolbert and Zucker, 1996).

Giddens' (1976, 1979, 1984) process-oriented Structuration Theory presumed the institution or structure to be both the **product** of human actions and, at the same time, a source of **constraints** on the free initiative of the independently-constituted subject. In other words, structure serves to constrain actions and, simultaneously, the feedback action serves to preserve or modify the structure in the same context. This is termed the 'duality of structure'. Structure, nonetheless, does not represent an object but rather embodies rules and resources

that are implied recursively in social reproduction, providing that the rules and resources are incorporated within the process of structuration. The concept that institutions exhibit an inherent duality (arising from and constraining social actions) was often dismissed in institutional studies, leading to a failure to recognise how actions affect institutions.

While structure serves to shape actions and at the same time is shaped by them, structure relies heavily on agency. Both structure and agency are recursively related. In the social sciences, **agency** refers to the **capacity of agents** or institutional actors to act independently and to make their own free choices, which is different from the drivers of their actions. This capacity is affected by the cognitive belief structure, influenced by the experience and perceptions of society and the individual as well as the circumstances of the environment. Power, which is involved in resource authorisation and allocation, is one of the agency characteristics. An example of this is the coordination of the activities of the institutional actors in generating actions. Therefore, agency would have an impact on actions, which would thereof impact on the structure, and *vice versa*. Thus, the focus of this theory is fenced against the manner in which action and structure presuppose each other, where the structural properties of social system are the medium and outcome of practices they regularly organised.

In the context of Structuration Theory, Giddens (1976, 1979, 1984) refers agency to human action. He also emphasised that human actions are not directly derived from motivation; instead, actions are derived from the practical consciousness or intentions of the actors or agents, resulting in consequences that subsequently determine further actions for feedback. This notion justifies the previous statement, claiming that actions shape phenomena voluntarily, the actors are knowledgeable about their actions, and the actions are executed according to goals of which they are aware. This situation was further explained by Giddens' "reflexive monitoring of actions" concept, which refers to agents' ability to monitor their

actions and frame those actions' settings and contexts (Giddens, 1984). Monitoring is an essential characteristic of agency, or what Giddens refers to as human actions. Agents "rationalize" or evaluate the outcome of their monitoring efforts by classifying the consequences into intended and unintended accordingly, for feedback purposes. For example, in the presence of unintended consequences, unacknowledged conditions frame the feedback actions. Nonetheless, prior to feedback generation, agents are required collectively to coordinate ongoing actions, goals, and contexts, effortlessly relying on their knowledge and bounded by a particular context of structure. In this particular situation, the agents decode their knowledge of that structural context into actions. These actions, however, are restricted by the agents' inherited capabilities and understanding of their existing actions and external limitations, guided by the principles of *practical consciousness* and *discursive consciousness*. Practical consciousness refers to the knowledge that an agent brings to the tasks required in everyday life, which is deeply rooted and barely noticeable or separable, thus inviting reflexive monitoring to occur. Discursive consciousness, on the other hand, is the ability of an agent to express knowledge verbally. Hence, through actions, the agents produce structures, and through reflexive monitoring and rationalisation, they modify the structure, transforming it into an institutionalised one. Hence, having the capability to act means that the agents must be motivated, knowledgeable and able to rationalise the action as well as able reflexively to monitor that action.

Considering the agents as the central focus in this theory, the factors enabling or constraining an agent's action are worth considering. Referring back to Giddens' (1984) work, the factors which are known as *capability constraints* define the limitations on the activity of individuals and how an agent uses structures due to their biological structure and/or the facilities they can command. These include age, cognitive/physical limits regarding performing multiple tasks at once, the physical impossibility of being in multiple places at once, the available time and

the relationship between movement in space and movement in time and, lastly, facilities, which means the available tools for making commandments or usage when executing actions. One particular type of capability constraint is offered in the location, such as the locality, region (political or geographical zones, or rooms in a building), presence (the participation of other actors in the action) and physical presence (the physical existence of other actors nearby).

Emphasising the influence of agents in intervening in or preventing interventions, Giddens (1984) highlights that, as agents experience inherent and contrasting amounts of autonomy and dependence, they always possess a *dialectic of control* – which is a state providing them with the free will either to act or not in response to specific conditions, and this further enhances the role of the agents in the structuration process. Depending on the social factors present, agents may cause shifts in the social structure. Thus, even the smallest social actions contribute to the alteration or reproduction of social systems.

As discussed earlier, the duality of structure is fundamentally a feedback-forward process, whereby the agents and structures mutually ratify social systems whereby, in turn, the social systems become part of the duality (Giddens, 1984). Therefore, structuration recognises a social cycle, to examine which the focuses are refrained towards *structure or institutional realm, modality* (the medium by which structures are translated into actions), and *interaction or action realm*. The institutional realm represents an existing framework of rules and typifications derived from a cumulative history of action and interaction, making it deterministic, objective, and static in nature. The three general principles embedded in the institutional realm or structures, providing fundamental support to the social system, are **signification, domination and legitimation**, unlike the institutional realm, where the action realms refer to the actual arrangements of people, objects and events based on the current scenarios of social life, which are voluntaristic, subjective and dynamic in character. This

realm stands for three forms of action – communication, power and sanction – which are related to particular types of structures (principles in the institutional realm), accordingly.

Giddens (1984) claimed that structures, (referring to “rules and resources”) are embedded in the agents’ memory traces. Agents call upon their memory traces, of which they are "knowledgeable", to perform social actions. When this is happening, the structures (institutions) are being encoded in the actors’ stocks of practical knowledge – marking a starting point of interaction. Interaction refers to the agent’s fragmented, routinised activity within the social system that fades over time and space, yet is constantly reconstituted within different areas of time-space. To the degree that institutions are encoded in the actors’ stocks of practical knowledge in the form of interpretive schemes, resources, and norms adapted to a particular setting which Giddens calls ‘modalities’, they influence how the actors communicate, enact power, and determine what behaviour to sanction and reward.

According to Lamsal (2012), the first type of structure, which is signification, produces meaning through organised webs of language; for instance, semantic codes, interpretive schemes and discursive practices such as speech. The interaction between the agents through speech can be structured because particular interpretations of reality can be signified in our language beyond the simple meaning of mere words and thoughts (Cloke, 1991, pg. 103). In this respect, Giddens is expanding the role of the actor to be able to interpret and manipulate a structured language using interpretive meanings.

He added that the second element, domination, focuses on the production and exercise of power, originating from the control of either authoritative or allocative resources. Since Giddens believes that resources are the vehicles for power, his intention in Structuration Theory is to understand the power relationship as a form of interaction between the actor and the structure. In this interaction, resources can be used as a form of authority, illustrated by a

superior-subordinate relationship or in the form of property, such as the allocation of wealth or property.

The final type of structure, which is legitimation, produces a moral order via the naturalisation of societal norms, values and standards. When individual agents interact, they exhibit consciously, subconsciously, or unconsciously the meanings of their behaviour. Interacting in this manner shapes the current social norms and is weighed against the moral rules of the structure. Therefore, whether or not an action is considered legitimate in the social order is structured by this dimension of legitimation.

To conclude, the cycle of structuration is not a defined sequence; it is rarely a direct succession of causal events. Structures and agents are both internal and external to each other, mingling, interrupting, and continually changing each other as feedback and feedforward occur. The points of intersection between the two realms explain the structuration process, as denoted in Figure 4-2 (Barley and Tolbert, 1997).

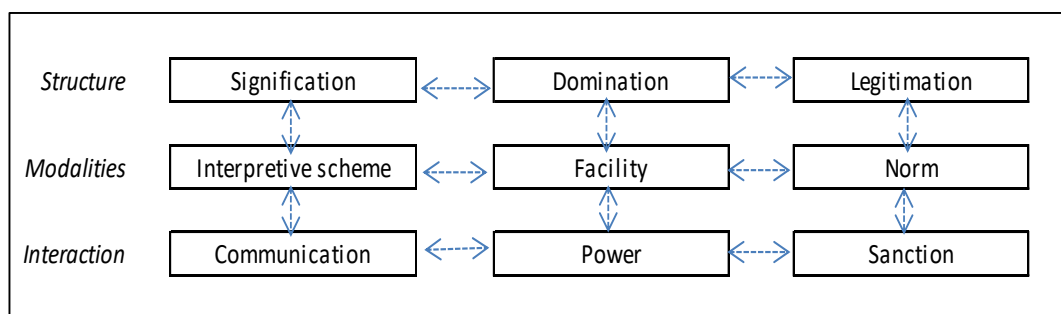


Figure 4-2: Giddens' Structuration Model (1984)

(Source: Giddens (1984, p.29))

As Structuration Theory is centrally concerned with *order* as “the transcending of time and space in human social relationships”, *institutionalised action* and *routinisation* are fundamental to the establishment of social order and the reproduction of social systems. Routine persists in society, where daily life is greatly deformed and re-established. Routine interactions become institutionalised features of social systems via tradition, custom and/or

habit, that must be ‘worked at’ continually by those who sustain it in their day-to-day conduct, thus requiring the skilled accomplishments of knowledgeable agents (Giddens, 1984). The recurrence interactions between the institutional actors and structure happened over time and space through different modalities and actions. Besides implicating the shape of institutional structure, these interactions also bring about intentional and unintentional consequences on institutionalisation, especially on the actor’s agency. Agency empowers actors to perform desired actions needed to facilitate institutionalisation. As the interactions continue and are routinized, the practices associated with the implied institutional structure become institutionalised.

Analysis using the Structuration Theory is meant to discover the growth of events that develop over a period of time and explain the outcome through the series of structuration events (Jones and Karsten, 2008; Robey and Newman, 1996). Structuration Theory illuminates the interplay between structure and human interactions, mediated by a range of components and how these interactions translate each event into a sequence of meaningful actions that modifies the existing structure of public service.

According to Veenstra (2014), even though Giddens rarely refers to technology in his work, ST has been widely used in IS research, and is considered especially useful for explaining the *unexpected* outcomes of IT implementation. ST can account for the differences between the outcomes of an IT implementation process and the intentions during the design of the technology, thus also contributing towards identifying the unintended consequences of the development and implementation of different technologies and services within the government. Since these unintended consequences can occur both in the existing structure and agency – as a result of DSI and in the outcomes of the development and implementation of DSI – as a result of structure and agency, ST can be used to investigate either phenomenon.

4.4.6 Institutionalisation is a Structuration Process

The existing normative literature offered limited analysis of the reciprocal interactions between the technology, actors and structures in an organisation in the context of large-scale DEST projects. In the real world, the interactions between these elements – which formed the progression of events over a certain period of time – are critical factor that would determine the successful institutionalisation of change.

From the four cases reviewed, it was evident that the interrelationships among the institutional elements (structures and actors) induced critical learning at every stage, and reinforced the existing structure, or shaped and altered the structure into a new one. This critical phenomenon significantly facilitated or impeded implementation of DEST programs.

The Institutional Theory lens makes it possible to understand the institutions' characteristics and behaviour, by examining the interaction between its internal and external environment, in the process of becoming institutionalised (Scott 2014). The interactions, in certain situations, would create pressure on organisations with varying degrees of magnitude, triggering the need for change. To maintain the equilibrium, PS organisations undergo an isomorphism process – a process of resembling the external environment – through the institutionalisation of newly-introduced innovation. In this context, such an innovation is the DEST. Understanding this process is vital in order to facilitate the institutionalisation process.

Barley and Tolbert (1997) argued that even Institutional Theory claimed that organisational structures are socially constructed; the theory never directly investigated the processes, by which structures emerge from or influence action. Thus, to measure institutionalisation directly and answer the questions about how particular organisational structures emerge or how their diffusion is constrained, it was suggested that one needs to consider how actions affect institutions, considering the roles of the actors and consequences of their actions

through different modalities - a perspective which was regularly ignored in most studies employing Institutional Theory. To draw a better conclusion and gain a deeper understanding of these processes, the researcher refers back to the Structuration Theory of Giddens (1984).

Giddens (1984) suggested that structuration is “a social process” that involves the reciprocal interaction of the human actors and structural features of organisations. Structuration Theory allows scrutiny of the underlying process that emerge from the interactions between the organisation’s actors and structures, resulting in outcomes of a certain degree – either positive or negative, depending on the intervention pattern. The model asserts that human action and social aspects are interdependent. Thus, separating the analysis of the structure from that of the agency is strictly avoided. The organisational structure constrains actions and the feedback action simultaneously preserves or modifies the structure. Emphasising the organisational structures is the cause of human actions, and a sound understanding of this theory will provide better insights into the detailed process of how organisational changes explain themselves as the product of actors in the organisational field.

Critics argued that Giddens’s Structuration Model is temporal and static in nature (Barley and Tolbert, 1997). The model accounted for duration as the background, rather than attention. To understand how action changes institutions, Barley and Tolbert (1997) translated Giddens and Berger and Luckman’s notion of the structuration process into a dynamic model known as ‘A Sequential Model of Institutionalisation’ (Figure 3-3). This model indicates that structure is utilised to trigger action through definite patterns of behavioural regularities or ‘scripts’. The scripts contain encoded institutional principles, and enact to the actors to shape actions. The enacted scripts are then replicated or revised by the actor in his/her action, before the action is externalised and objectified, in order to modify or maintain the structure. These interactions recur over time (or temporal, T), until expected, generalised behaviour is established and the structure becomes institutionalised. In this context, DEST (technology) is

viewed as the ‘virtual order’ (script) of transformative relations that exists in the minds of the actors (Jones and Karsten, 2008).

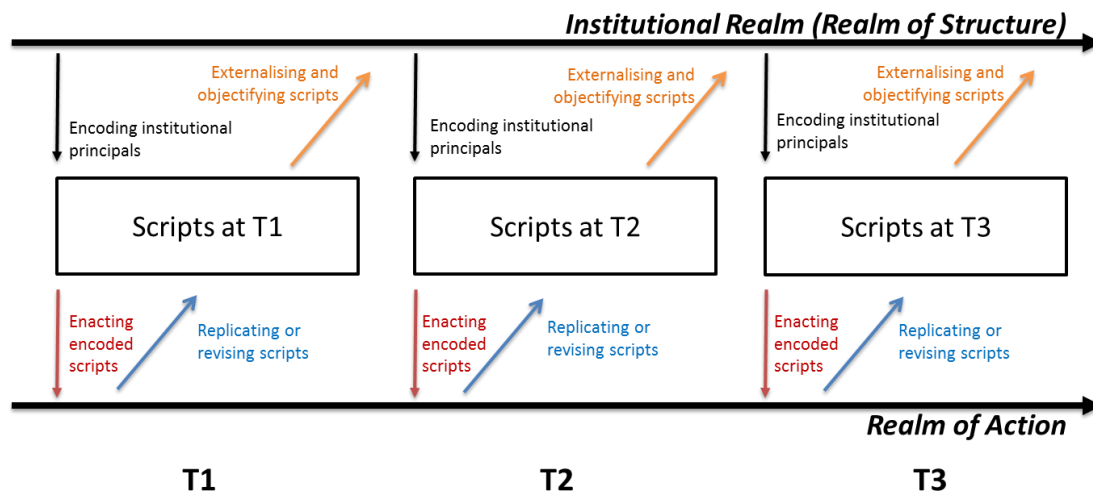


Figure 4-3: A Sequential Model of Institutionalisation
(Amended from Barley and Tolbert 1997)

The effect that DEST (as a structure) has on action depends on how the actors engage with the DEST through their actions. It means that an instruction to adopt DEST will be replicated or revised by the actors, depending on their knowledge of the subject, before the action is externalised and objectified. Recalling Giddens’ Structuration Model, the actor’s knowledge is stored in three different stocks: interpretive schemes, facility or resources, and norms. Interpretive schemes refer to knowledge acquired through a signification process, thus determining how the actors communicate, as their action. Next, facility or resources refers to knowledge acquired through the domination process, which is reflected in a ‘show of power’ by the actor. Lastly, a norm is a knowledge stock that is acquired through the legitimation process, and helps the actor to recognise good or bad behaviour for reward or sanction, respectively. Hence, from this perspective, DEST (as technology) does nothing on its own, unless implicated in the action of an actor. Drawing on these concepts, it was considered

beneficial to analyse a combination of both Institutional Theory and Structuration Theory to assess whether institutionalisation is a structuration process.

Institutional Theory and Structuration Theory both posit that organisations and movements are inseparably connected and that systematisation is best seen as a dynamic, progressing procedure, where the cooperative energy of both would show an understanding of how the foundations are made, modified, and duplicated through activities (Barley and Tolbert, 1997).

Thus, using a combination of both Institutional Theory and Structuration Theory as a conceptual lens in change management studies, particularly those on the implementation of new technology or digitally-enabled services within the organisation, would provide a precise understanding of the restructuring process caused by environmental-associated pressures. This would support the explanation of the end results beforehand, through a thoughtful consideration of the series of structuration events, thus equipping the relevant actors with more effective skills and tools for handling critical situations that emerge from the process, leading to the institutionalised state.

4.5 Proposed Conceptual Framework

The literature and theoretical analysis offered in previous sections provides the basis for proposing a conceptual framework that maps the interplays between the institutional actors and structures at every stage of the institutionalisation process. The framework is depicted in Figure 4-4. It will offer the overall structure and guidance on the key lines of inquiry for exploring the underlying process of institutionalisation, and the challenges facing DEST implementation.

In the framework, the institutionalisation process was segregated to illustrate three stages of 'Pre-institutionalisation', 'Semi-institutionalisation' and 'Total Sedimentation' (Tolbert and

Zucker, 1996). To facilitate deeper understanding towards structuration activities, the modalities of Interpretive Scheme', 'Facility' and 'Norm' as portrayed in Giddens's structuration model (1984), are incorporated within the framework. 'Interpretive Scheme' provides explanation on the process of inserting meaning towards newly introduced structure (in this context – DEST), while facility explain how the actors may exercise their power to re-enforce the structure, and lastly 'Norm' elaborate the process of sanctioning undesirable actions or rewarding intended actions to re-produce and maintain the structure in the organisation.

4.5.1 The Pre-institutionalisation Stage

The first stage of Institutionalisation is pre-institutionalisation, where DEST was introduced to the organisation. Since the institutionalists postulate that institutions as exogenous to organisational action (Scott and Meyer, 1994), institutionalisation process was addressed through how institutions emerged as the result of institutional pressures.

In the context of the four cases (NHS-NPfiT, BBC-DMI, DVLA-SSp and TUO), the institutional pressure was originated externally. For instance, in TUO it emerged as the innovation of the 'death reporting' process. The demand for a better process by the citizen to communicate about changes in their life circumstances (death, birth and change of address) to the government was captured by the Local Government Development Council (LGDC) through a survey called 'project identification'. The survey was meant to advise the citizens of whom they should notify the changes and to find if the citizens welcome the service that notified Government Departments on their behalf (Department for Work and Pensions, 2011). Results revealed that the citizens were unhappy about the existing process and expected a unified process, where the reporting should only be done once to inform all relevant

organisations about someone's death, birth or change of address. In conclusion, the practice needs to be transformed. As a reaction to this, TUO was introduced in 2011.

Immediately after the introduction of innovation, the institution will face a scenario where the actors search for new practices to support the innovation. In order to form 'right practices', the actors will start searching for and interpreting the meaning or value of such innovation. These steps are encapsulated in the habituation stage, which consists of signification process, i.e. one of the processes in Structuration Theory. In the TUO case, five steps were adopted to help the actors formulate right practices to support the TUO implementation. The steps are the project identification survey, the discussion group, pathfinder's project, feasibility study, and program evaluation. The project identification survey helped to identify the problem with previous practice and what are the desired model of new practice that provided basis for TUO project. Feedback from the survey was concluded in a proposal, which was sent to the central government for concept approval. Among others, the proposal contained information about citizens' requirement on the proposed system. In this way, information gathered from the citizens and other implementers such as local councils and bereavement centers, was centralized, revised and interpreted in a meaningful way to be presented to the central government for next action. Then the feasibility study (discussion group and pathfinders project) helped to validate the proposal designed during the project identification survey, which shaped the actual TUO model and work process. Next, the intensive pilot program had enabled the identification of potential issues that could hinder TUO institutionalisation. All of these activities illustrate the role of actors in forming structure. The implementers, as actors had provided feedback on the practices prescribed on them by the decision maker. The feedback, which contained revise scripts, was objectified through structural change. For example, the pilot program (as a structure) was used to encourage reactions among the actors. The reactions had induced 'typifications', which is a

process of finding solutions (right structure). Knowing that different actors uphold to different values and meaning, 'typification' creates various structures and decreased the chance of getting common solutions (DiMaggio & Powel, 1983). This was reduced by having actors of different roles working together in identifying commonly agreeable practices.

4.5.2 The Semi-Institutionalization Stage

The next stage in institutionalisation is the semi-institutionalization stage, incorporating objectification activities of monitoring and enhancing competitiveness. These activities involve domination and legitimation of structure. Using facility of power to allocate or authorise resources, the dominating actors will control the actions of others in producing desirable practices. As the desirable practices were produced, attempts will be made to legitimise them through structural manipulation. These manipulations are performed by the actors that have access, control and influence over the institutional facilities, such as the decision makers or project owner.

Taking the case of TUO for an example, the signing of the memorandum of understanding (MOU) helped to seal the responsibilities and commitment of the institutional actors in achieving the project objective. Indirectly, the MOU denotes the exercise of control facility over the actors' actions by the project owner (i.e. DWP), through a formal, manipulated structure. The action asserts that TUO is a 'jointly-owned program', thus concealed the fact that TUO was the Whitehall's tall order. On the other hand, it was used to constrain actions – especially to control the undesirable practices that had helped to institutionalise TUO. To legitimise the desired practices, an implementation manual was design and used to guide actions. By this, the DWP had categorised the accepted and unaccepted actions – which facilitate the normalisation of practices through repetition of desired actions. These steps were not found in the unsuccessful NHS-NPfIT and BBC-DMI cases.

4.5.3 The Sedimentation Stage

The last stage of institutionalisation is ‘total sedimentation stage’, where it marks the eternality of new practices. The normative component of social interactions is situated between the right and expected obligations of the institutional actors that are interacting in a certain context. Such component laid the claim of legitimate practice i.e. accepted by a certain social system, known as norm – and norm is shaped through code of practices or regulations enforcements over distant time and space (Giddens, 1984, pg. 165). This stage depicts the total acceptance of new practices as institutional norm, thus they are reproduced and maintained as part of the institutional convention.

In this respect, a process to institutionalise NHS-NPffIT appeared to be highly challenging, partly because it is replacing the deeply rooted norms of the existing healthcare management system that had been in place for decades. Hence, it was opposed by many, particularly the healthcare professionals (i.e. doctors) who are already complacent with the existing system that felt their ethos were threatened by the new system (i.e. cost vs. patient).

Figure 4-4: The Research Conceptual Framework

(Own illustration)

The framework as shown in Figure 4-4 should be read as the following:

a) Context:

Change is contextual and happens through social processes. Because the institution shapes actions, public organisations are susceptible to change when exposed to institutional pressures. Thus, the interplay between both the institutional (i.e. the external organisational environment that is depicted by the outer border) and the internal organisational environment (i.e. depicted by the inner square framing the objectification and sedimentation stages) should be conceptualised in order to gain a better understanding of their interactivity.

b) Innovation:

DEST is produced by the organisation as a strategic response towards environmental pressures. For instance, the demand for provision of better healthcare service that is asserted as pressure on NHS by the society had urged the NHS to develop a function in NPfIT that integrates the patients' records, which enables them to be accessed by the service providers regardless of their locations.

c) Component Process of Institutionalisation

Adopted from Tolbert et al. (2006), the three component processes of institutionalisation are habituation, objectification and sedimentation. These processes are iterative, spatial and temporal in nature.

d) Habituation:

Upon the introduction of innovation, the institutional actors seek solutions that are available, to their knowledge. This stage is known as 'inter-organisation monitoring'. In this stage, the actors are prone to imitate readily-available solutions by monitoring and imitating the patterns of reactions performed by others. Limited by their knowledge, the actors then propose actions and structures to accommodate the innovation as solutions. This stage is known as theorisation. As the background of the

actors varies, multiple solutions will be proposed, thus reducing the chance of finding a commonly-agreeable solution (Tolbert and Zucker, 1999; Scott, 2014). Therefore, it is a stage that is highly vulnerable in the institutionalisation process, and the most critical in determining the success of the DEST institutionalisation process (Zucker, 1991; Barley and Tolbert and, 1997). The outcome of these two stages is the identification of the right solution, actions and structures as a reaction to organisational innovation i.e. the DEST. Hence, understanding and consensus among the actors are required to facilitate the adoption of the proposed DEST. Through an ‘interpretive scheme’, the benefits and implications of implementing DEST, as well as required actions are justified and rationalised through communication. All of these processes are encapsulated in the habitualisation stage. Taking the case of TUO for instance, the well-communicated messages regarding the value of such system and its operationalisation during since the early stage of its inception had developed similar understanding among the actors involved, thus increased the achievement of commonly agreed actions and structures entailing its implementation.

e) Objectification:

Subsequently after the ‘theorization’ stage, the actors conduct a benchmarking exercise or ‘monitoring’, in order to enhance the value of DEST through appropriate practices. This stage resembles the creation of structures through the modality of facility (or resources), which implies that the actors exercise their power by utilising the structures or resources that are available to them, in order to govern the action (Giddens, 1984; Barley and Tolbert, 1997). The outcome of this stage is suggestion of new practice. In the case of BBC-DMI, the Board of Directors had failed to exercise

their power in intervening the project, thus discouraging corrective actions that would have been taken to bring back the project on the right track.

In the next stage, i.e. legitimation, the practice that was proposed in the previous stage will be distributed among the organisational actors. Hence, the actors will modify the existing structures and actions to support the practice. However, if the practice is not accepted, the actor will preserve the existing structures and actions (i.e. the act of preserving the existing practice). Nonetheless, if the practice was accepted by the majority of the organisational actors and become well-distributed, it will be replicated and gradually embedded as the norm. From the structuration process point of view, this stage resembles the modality of the 'norm', where the actors' actions would be rewarded or sanctioned accordingly to increase the structural legitimacy. These processes emerged during the objectification stage, where the ultimate aim is to achieve a consensus among the actors on the value of the structures, which would increase the adoption of DEST.

f) Sedimentation:

The completion of the habitualisation and objectification stages would lead to the sedimentation stage, where the practice is rested for continuity and taken for granted.

This is where the DEST is institutionalised.

The framework illustrates how Institutional Theory helps the researcher to conceptualise various institutional elements, such as institutional pressures, fields, logics, interpretive schemes, facility and norms. Based on the existing literature, the researcher assumes that those elements could either impede or facilitate the formation of the desired structure and

practice, to support the institutionalisation of DEST, especially in public sector organisations. The framework illustrates the above arguments, how the structure constrains and permits action, and also how the action shapes the structure, as proposed in Structuration Theory, and how these structuration events contribute towards the institutionalised practice of DEST.

Although technology forms the backbone of all DEST projects, a single-sided view, implying that the projects merely represent the technological aspect of the transformation, should not be applied. In a living context, DEST will shape and be reciprocally shaped by other institutional elements, which form the institutional culture that determines the organisational norms and values, and institutional facilities that regulate the use of DEST in the organisation. Misunderstanding this concept will lead to an excessive focus on the technical imperatives of DEST, neglecting the links between it and other areas – which could also result in the automation of unnecessary functions and the setting up of unrealistic outcomes for projects (Baptista, 2009).

4.6 Conclusion

This chapter has briefly presented the need and importance regarding the conducting of this research. Thereafter, it highlighted the need to develop a conceptual framework to facilitate the exploration of DEST institutionalisation in the public sector context. Hence, this research examined four previous DEST projects in the UK public sector context to establish the theoretical concepts involved in DEST institutionalisation. The lessons drawn from the cases indicate the importance of the actors and structures' roles in institutionalising DEST. Such lessons refer to the concepts constituted in four theories, i.e. Institutional Theory (IT), Structuration Theory (ST), Adaptive Structuration Theory (AST) and Actors-Network Theory (ANT). After further analysis, the research proposed a conceptual framework that combined the Institutional Theory (IT) and Structuration Theory (ST) concepts, to be used as

the analytical lens for the actual evidence. These processes enabled the identification of the ultimate method for conducting the investigation. The next chapter will define the appropriate methodology for exploring the institutionalisation of DEST in the public sector context, focusing on the roles of the actors and structures.

Chapter 5

CHAPTER 5 : RESEARCH METHODOLOGY

5.1 Introduction

In the previous chapter, this study developed a conceptual framework for exploring the structuration events within the institutionalisation process of Digitally-Enabled Service Transformation (DEST) in the public sector, to overcome the limitations found in the existing studies highlighted in Chapter 2. The framework constitutes concepts of the micro-institutionalisation process as explained in Institutional Theory (Tolbert and Zucker, 1999), and the duality of structure as highlighted in Giddens' Structuration Theory (1984). This current chapter will seek to identify the most appropriate research methodologies to employ to address the research problem and validate the proposed conceptual framework. Based on the 'Research Onion' analogy of Saunders et al. (2016), as depicted in Figure 4-1, this chapter will provide a step-by-step approach to conducting the empirical work for this research, in order to obtain significant findings and achieve the research aim. As such, the following sections will highlight the different research philosophies, approaches, strategies, choices of methods, as well as the time horizons, and justify the methodologies selected for this study.

The chapter is presented as follows: Section 5.2 provides the justification for choosing interpretivism as the philosophical foundation for this study. Section 5.3 justifies the selection of the inductive approach in this research. Section 5.4 highlights the reason for choosing a qualitative approach for the study. Section 5.5 provides outlines the reason for selection of case study as qualitative enquiry method in this research. Section 5.6 explains why the research was conducted longitudinally rather than cross-sectional. Section 5.7 provides a discussion on the data analysis technique and procedures involved. Section 5.8 outlines the ethical considerations. Section 5.9 depicts the research design and explains the

overall plan for achieving the main aim and objectives of this study. Lastly, section 5.10 briefly summarises the chapter.

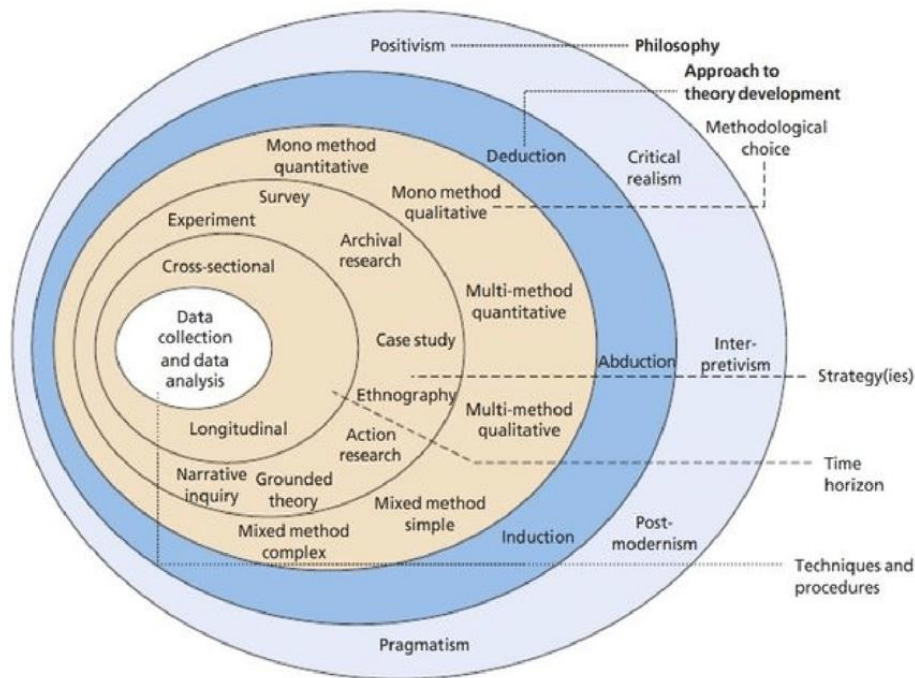


Figure 5-1: Research Onion

(Source: Saunders et al., 2015, p.p.124)

5.2 Interpretivism as the Research Philosophy

A research philosophy is the system of beliefs and assumptions employed in developing knowledge (Saunders et al., 2016). In this perspective, the development of knowledge can be as complex as new theory creation, or as simple as answering a specific problem in a given context. Each research philosophy makes a distinct contribution to research, as it denotes how the researchers ‘see’ the organisational realities, or make assumptions about the research subject (Burrell and Morgan, 1986). The assumptions would determine how the research questions were understood and the research strategy, including the data collection methods to be used, and how the findings were interpreted. Ontological, epistemological and axiological are the three types of assumptions available within the research philosophy.

Ontological assumptions are concerned with the nature of reality. They shape how the research object, such as organisations, stakeholders, individuals, structures and organisational events, are seen, thus determining how the object will be studied in order to address the issues. For instance, in studying the institutionalisation of digitally-enabled service transformation (DEST) in the public sector, this research employed the ontological assumption that stakeholders (actors) and structures played important roles in determining a successful institutionalisation process. Based on such an assumption, this research focused on how the actors' actions modify or reinforce the organisational structures, which in turn constrains other actions in order to institutionalise the practices associated with DEST.

Epistemological assumptions, on the other hand, are concerned with the establishment of acceptable knowledge in the field of study and the communication of such knowledge to others (Saunders et al., 2016). Such an assumption will govern what researchers believe to be legitimate in conducting their research. Hence, epistemology is argued to be the most significant philosophical assumption for guiding the research, because it determines the research strategy and methods used to collect the empirical evidence (Osmani, 2014; Myers, 2009; Orlikowski and Baroudi, 1991).

Lastly, the roles of values and ethics within the research process are depicted in the **axiological** assumption. The axiological assumption determines how researchers deal with their own values and also those of the research participants. A clear statement of personal values helps to heighten awareness of any value judgements that researchers might make in concluding the findings. In other words, the assumption shapes how the evidence will be interpreted in the final stage of the research. Therefore, in the context of this research, the axiological assumption was shaped by a personal value that a successful transformation in the public sector is the responsibility of the stakeholders. Hence, the interpretation of the data would concern the roles played by the stakeholders that impede or facilitate the

institutionalisation process. In doing so, the research employed methods that allow the exploration of such values.

These assumptions were scattered along the continua of two opposing extremes: objectivism and subjectivism. The objectivism incorporates assumptions that the social reality that researcher study is external to himself/herself and others, and generalisable throughout every context (a single reality). This means that objectivism perceives the social world as independent, where the social actors do not influence the existence of the social world or physical phenomena. Therefore, to discover the truth, it should be studied in the same way as nature was studied, such as through observable media and measurable facts. Meanwhile, subjectivism incorporates assumptions that resemble the art and humanities principles – asserting that the social world is a product of human interactions and perceptions. Such a view embraces multiple realities, which then requires each situation to be explored in detail in order to understand the context and how it was experienced by the people within it. As opposed to objectivism, subjectivism focuses on the discovery of opinions and different social realities rather than truth-seeking. Such an approach was adopted in this research. The following sections will provide further explanation of all five philosophies and the relevance of each to this study.

The particular paradigm adopted for a particular research project is partly determined by the dominant paradigm in the research area and partly by the nature of the research problem (Collis and Hussey, 2009). Interpretivism highlighted that, unlike social phenomena, humans create meanings for their actions. Such meanings, which exist in the mind, are subjective and unique in nature, as they are shaped by diverse cultural backgrounds under various circumstances and in different time-periods (Saunders et al., 2016; Collis and Hussey, 2010). For instance, the ways in which the politicians, boards of directors, technical teams and implementers perceived and experienced DEST implementation differ, due to the fact that

they had experienced different organisation realities. Therefore, with the ultimate aim of producing new, richer understandings and interpretations of the social world and contexts, these meanings are explored by the interpretivists.

Taking into account the fact that public sector organisations are a relatively complex context, with diverse backgrounds and roles for people, this study adopted interpretivism as the main research philosophy. By employing such a philosophy, this research aims to contribute a fresh and deeper understanding that could facilitate interpretations of the social events within the research context.

The choice of the interpretivist paradigm for this research was made by considering the scope and depth of the research. The research aims to understand the roles played by the institutional actors and structures within the institutionalisation process of DEST in the public sector. Therefore, to increase our understanding of this phenomenon, this study is conducted in its natural settings.

The phenomenon was explored and examined in its real context, followed by an analysis depicting the lessons learnt, explanations and reflections of the phenomenon. Unlike positivist research, that aims to prove a hypothesis, the main concern of interpretivist research is subjective and shared meaning, which would be discovered by understanding how particular social actors interpret and understand social events through their own context settings. Therefore the research focuses on understanding the social context of IS by recognising how all of the factors are related and interdependent in a particular social setting (Oates, 2006). Interpretive study starts with the assumption that changing and individually constructed reality is only accessed through social constructions such as language (Eriksson and Kovalainen, 2008), as utilised in this research.

5.3 Approach to Theory Development

A theory is defined as broader schemata, organised through the revision of concepts as a result of the production and testing of hypotheses in an attempt to solve problems (Kelly, 1955). Theory is composed of four elements: (1) which variables or concepts are to be examined; (2) how the variables and concepts are related to a cause and effect relationship; (3) why the variables and concepts are related and, if so, the nature of this relationship; (4) who does it apply to, where and when does it is apply, the defining context and limitations (Whetten, 1989). In this perspective, apart from its usage to define the research questions, a theory is needed as a reference for making sense of the complex world through connecting the details available in a particular context (Saunders et al., 2016). Therefore, regardless of whether the theory may or may not be made explicit, the adoption of theory in the research design is of paramount important. Saunders et al. (2016) defined three approaches used in theory development; namely, deductive, inductive and abductive. These approaches are summarised in Table 5-1.

Table 5-1: Deduction, induction and abduction: from reason to research

(adapted from Saunders et. al, 2016, p.p. 145)

	Deduction	Induction	Abduction
Logic	If the premises are true, the conclusion must also be true	Known premises are used to generate untested conclusions	Known premises are used to generate testable conclusions
Generalisability	From general to specific	From specific to general	From the interactions between the specific and the general
Use of data	Data collection is used to evaluate propositions or hypotheses related to an existing theory	Data collection is used to explore phenomena, identify themes and patterns and create a conceptual framework	Data collection is used to explore phenomena, identify themes and patterns, locate these in a conceptual framework, and test this through subsequent data collection and so forth.
Theory	Theory falsification or verification	Theory generation and building	Theory generation or modification; incorporating existing theory where appropriate, to build a new theory or modify an existing one

As opposed to the deductive approach, an inductive approach describes research that begins with data collection in order to explore phenomena and so understand their nature better and generate theory in the form of a conceptual framework. In other words, this approach produces theory as the research outcome, by drawing generalisable inferences from observations or findings (Bryman and Bell, 2011; Collis and Hussey, 2014). Based on the argument that every human interprets his/her social world differently, this approach supports critical reasoning and allows an alternative explanation to underlie every event within the research context. Therefore, this approach is highly ‘context-sensitive’, in contrast to the deductive approach. Consequently, a study of a small sample of research subjects might be more appropriate than of a larger sample in the deductive approach. This approach entails

conducting qualitative research, where the researcher studies the topic within its context and uses an emerging design where the categories are identified during the process to define the theory and conclude the findings (Collis and Hussey, 2014). The inductive approach is appropriate for a research topic which is new, attracting considerable debate, and where there exists little literature within such a domain. The claim was based on the fact that this approach would allow the generation and analysis of data, as well as a reflection on the findings against the existing theory.

Hence, this study has chosen the inductive approach towards theory building, as it follows the conventions described in Figure 5-2. Furthermore, the ultimate aim of this research is to enhance our understanding of the roles of the actors and structures in the institutionalisation process of DEST, rather than describing it. Therefore, firstly, the data will be collected and analysed in order to identify a plausible theory and develop a conceptual framework. In a later stage, the conceptual framework will be verified against further evidence, where the themes were left open for potential new concepts, in order to draw the final framework as the research contribution.

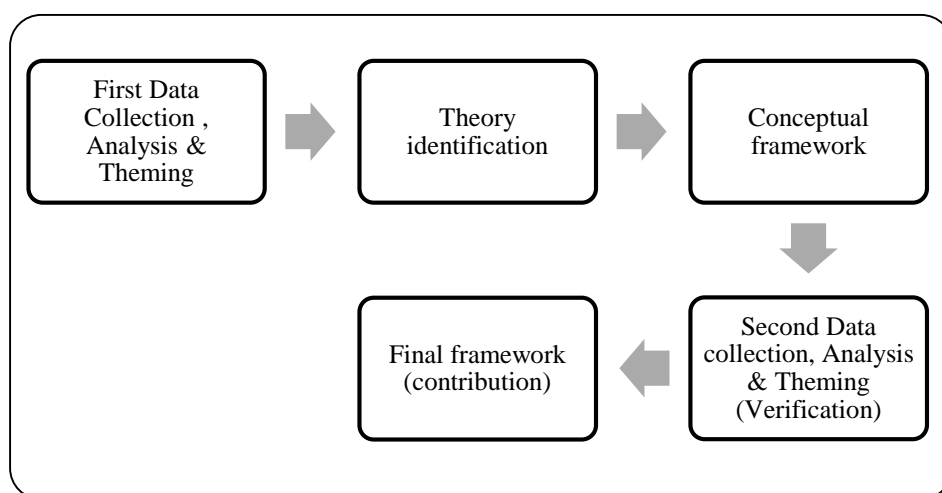


Figure 5-2: Inductive Approach in Theory Building
(Own illustration)

5.4 Methodological Choice

There are three main types of research method that may be adopted in any study: (1) Quantitative; (2) Qualitative; (3) Mixed methods. These approaches are summarised in table 5.2 **Error! Reference source not found.** The choice of the research methods is associated with the research philosophy and approach..

Table 5-2: Differences between Quantitative, Qualitative and Mixed Method Research

(Own illustration)

Areas	Quantitative	Qualitative	Mix
Research philosophy	Positivism (attempts to test theory in order to increase predictive understanding of the phenomena)	Interpretivism (where the researcher studies the topic within its context and uses an emerging design whereby the categories are identified during the process)	Critical realism (requires researchers to experience the events in order to sense the reality, followed by backward reasoning to generate understanding of the unobservable reasons embedded in reality)
Approach to theory development	Deductive (The testing of propositions, after which they are confirmed or rejected)	Choice of: <ul style="list-style-type: none"> • Inductive (the researcher draws generalisable inferences from observations or findings to build a new theory) • Abductive (the research begins with data collection to explore phenomena, followed by theme identification, theoretical selection and a secondary data collection process to verify the theory before finally proposing an enhanced theory as a contribution) 	Choice of: <ul style="list-style-type: none"> • Deductive (testing of propositions, after which they are confirmed or rejected) • Inductive (the researcher draws generalisable inferences from observations or findings to build a new theory) • Abductive (the research begins with data collection to explore phenomena, followed by theme identification, theoretical selection and a secondary data collection process to verify the theory before finally proposing an enhanced theory as a contribution)
Characteristics	It examines the relationships between variables and the findings are measured numerically and analysed statistically.	It studies the participants' meanings and their relationships to develop a new theory or enhance an existing one.	It demonstrates the characteristics of both the qualitative and quantitative methods.
Research strategy	<ul style="list-style-type: none"> • Experimental • Surveys 	<ul style="list-style-type: none"> • Case study • Grounded theory • Narrative research • Ethnography 	Combination of qualitative and quantitative research strategies.

Unlike quantitative, qualitative research help to explore and develop a richer knowledge of the phenomena under investigation in order to gain an in-depth understanding of the meanings assigned by individuals or groups to certain social conditions (Cresswell, 2009; Silverman, 2010). This method emphasises words during the data collection and analysis (Bryman and Bell, 2007). Frequently, it is associated with the interpretive philosophy (Denzin and Lincoln, 2011; Collis and Hussey, 2014). The research context and subjective meaning of social actions within the context is the key essence in data analysis (Taylor and Bogdan, 1985). In other words, qualitative research focuses on the intensive study of all aspects of a phenomenon in order to identify their inter-relationships, and requires the researcher to make sense of the subjective and socially-constructed meanings of the research context. Employing either the inductive or abductive approach, the qualitative method suggests newly-built or enhanced theory as the study outcome (Collis and Hussey, 2014). In doing so, the researcher embarks on generalisable inference derived from the observations or findings in order to draw conclusions (Bryman and Bell, 2011). Therefore, the qualitative method offers more generous explanations and a greater understanding of the research subject, unlike the quantitative method, that has been criticised for offering only snapshots of a problem due to ignoring the variables that are not included in the research model (Osmani, 2014). Hence, this method is a better choice when little is known about the issue under study..

Several authors have recognised the ability of qualitative research (e.g. Elbardan, 2013; Patton, 2002) to discover the meanings that people attach to their experiences of the issue under study. Qualitative research is argued to be able to illustrate multiple perspectives' explanations and develop a holistic picture of the issue under study (Creswell, 2009). To explore and understand the meanings that individuals ascribe to a social phenomenon, qualitative researchers often engage in face-to-face conversations and observation of behaviours, besides other approaches, such as case study, narrative research and ethnography (Creswell, 2009; Elbardan, 2013; Saunders et al., 2016). Despite these advantages, Yin (2009) argued that qualitative studies are

often too contextual in nature, thus providing less opportunity for generalisation. Nevertheless, qualitative research can be used to study social phenomena if it does not aim to provide general laws (Elbardan, 2013).

The qualitative method was seen as having the potential to accommodate the underpinning philosophy of this research, thus was chosen as the method for conducting this research. Interpretivism acknowledges the infusion of subjective and unique meanings in human actions due to the different realities encountered, that shape humans' actions and perceptions regarding the social world. Therefore, to enable the generation of a richer understanding and interpretation of the research contexts, these meanings should be explored qualitatively.

Firstly, the qualitative research methodology was applied in order to create a rigorous consistency between the theoretical and philosophical assumptions. The qualitative method is believed to be appropriate for this highly context-driven research, where the interpretation of the implied meanings of the social world or human actions is vital for understanding how and why these actions were performed. The main aim is to gain “knowledge of reality” through studying social constructions and interpretations of the phenomenon under investigation (Elbardan, 2013; Klein and Myers, 1999). This research applies a framework based on an interpretative institutional lens that potentially produces an understanding of the institutionalisation phenomenon, as well as mapping the key contextual and practical factors. Johnson and Onwuegbuzie (2004) argued that the qualitative researcher considers social properties and realities as the outcomes of social interaction. This is particularly a phenomenon with DEST institutionalisation, which emerges and becomes embedded through the interactions between the human actors and structures within their context, rather than being something ‘out there’ that develops objectively.

Secondly, this research explores the complex processes associated with the institutionalisation of DEST projects in the public sector. Since this is a less well-known

phenomenon, the qualitative research approach was chosen to foster an in-depth understanding of the dynamics of the process, through which the actions of human actors and institutional structures co-evolve in embedding practices associated with DEST projects. Understanding the factors and processes that impede or facilitate the institutionalisation of DEST projects is particularly complex to adopt as the focus of the study, considering that DEST implementation and use are closely related to the organisational context in which they exist (Rouse, 2005). As previously explained in chapter two, there is a scarcity of empirical qualitative research, and little research has examined the institutionalisation of DEST in the public sector. Therefore, qualitative research is regarded as the most suitable option for such an inquiry, as this research intends to contribute towards filling this epistemological gap in the change-management studies. This may allow the researcher to understand the nature and complexity of the phenomenon under investigation, as the quantitative method fails to offer the flexibility of embracing emergent perspectives or addressing un-predetermined or controlled phenomena.

The ability of qualitative data to provide contextual details (Bryman, 1988) is the final reason why the qualitative approach was chosen as the research method. This selection was also aligned with the aim of this study, which is to explore issues in their natural settings while attempting to understand phenomena in terms of the meanings that the human actors allocate to them (Silverman, 2010). The issues under investigation in this study are confidential, subjective and unique, and so a large amount of contextual data is required to facilitate a deeper understanding and explanation. The collection of qualitative data in their natural setting has enabled reflection on the context as study evidence (Miles and Huberman, 1994; Denzin and Lincoln, 2006). This is the social and cultural context in which the research participants work and approach the subject under study. The inclusion of such a context helped the researcher to compare and understand why the participants held different

viewpoints and reacted differently regarding the research subject (Myers, 2009). Therefore, the qualitative method was selected for this research.

So far, this research has justified the adoption of the interpretive paradigm, with the use of a qualitative methodology. The next section focuses on the selection of an appropriate research strategy(s) for conducting this study.

5.5 Research Design

Saunders et al. (2012) defined a “research design” as the general plan regarding how a researcher will go about answering the chosen research question. However, a research design is also defined as the “science (and art) of planning procedures for conducting studies so as to get most valid findings” (Collis and Hussey, 1997). Regardless of this variety of definitions, a research design is used as a plan to guide the research. Generally, the plan specifies the research objective that is derived from the research questions, sources of data collection, planned data analysis and ethical issues (Saunders et al., 2012). Research is designed to fulfil different purposes. Four common purposes for research are exploratory, descriptive, explanatory and evaluative.

Regarding the rigour of the potential research contribution, this research is designed to fit the purpose of exploratory study. An exploratory study aims to discover what is happening by asking open questions that normally begin with “what” or “how”. Since this study is able to provide insights about the research subject, it is particularly useful to provide an understanding of an unfamiliar research problem. The common methods for conducting this research would include a literature search, expert interviews, in-depth interviews and focus groups. Because of its exploratory nature, this research is unstructured and time-consuming. Furthermore, progressing to the next stage of the research will strongly depend on the quality of the contributions made by the research participants. Despite these disadvantages, this

mode of research is highly flexible and adaptable, especially if the results provide new insights to the researchers. Therefore, exploratory research starts with a broad focus, which narrows down as the research progresses (Saunders et al., 2016).

Through adopting the inductive approach, the plan is structured into seven phases: research design, data collection, data analysis, theoretical framework construction, a secondary data collection, secondary data analysis and theoretical framework enhancement. Firstly, a systematic literature review of the institutionalisation of DEST in public sector was performed during the research design phase, and the reason for conducting this study was identified. In the next stage, data were collected from secondary resources on four previous large-scale DEST projects carried out in the UK. Next, an analysis was conducted on the collected data to generate findings. In the subsequent stage, the findings from the analysis were clustered into themes to identify a plausible theory to be utilised as the lens in this research. Based on this, a conceptual framework was developed, constituting a combination of the Institutional and Structuration Theories' principles, representing the fourth stage of this research. In a later stage, the interview (qualitative method) was chosen as the data collection strategy to obtain further evidence. This stage involved seven interviews with stakeholders from three public organisations. Moving on, while retaining the interpretive research philosophy, the next stage involves analysing the data with the help of a tool called enVivo software. The results of the analysis were used in the last phase of this study, which entailed refining and enhancing the theoretical framework, besides providing a rich, in-depth understanding of the research subject, which was a contribution of this research. An overview of the research plan is depicted in Figure 5.3.

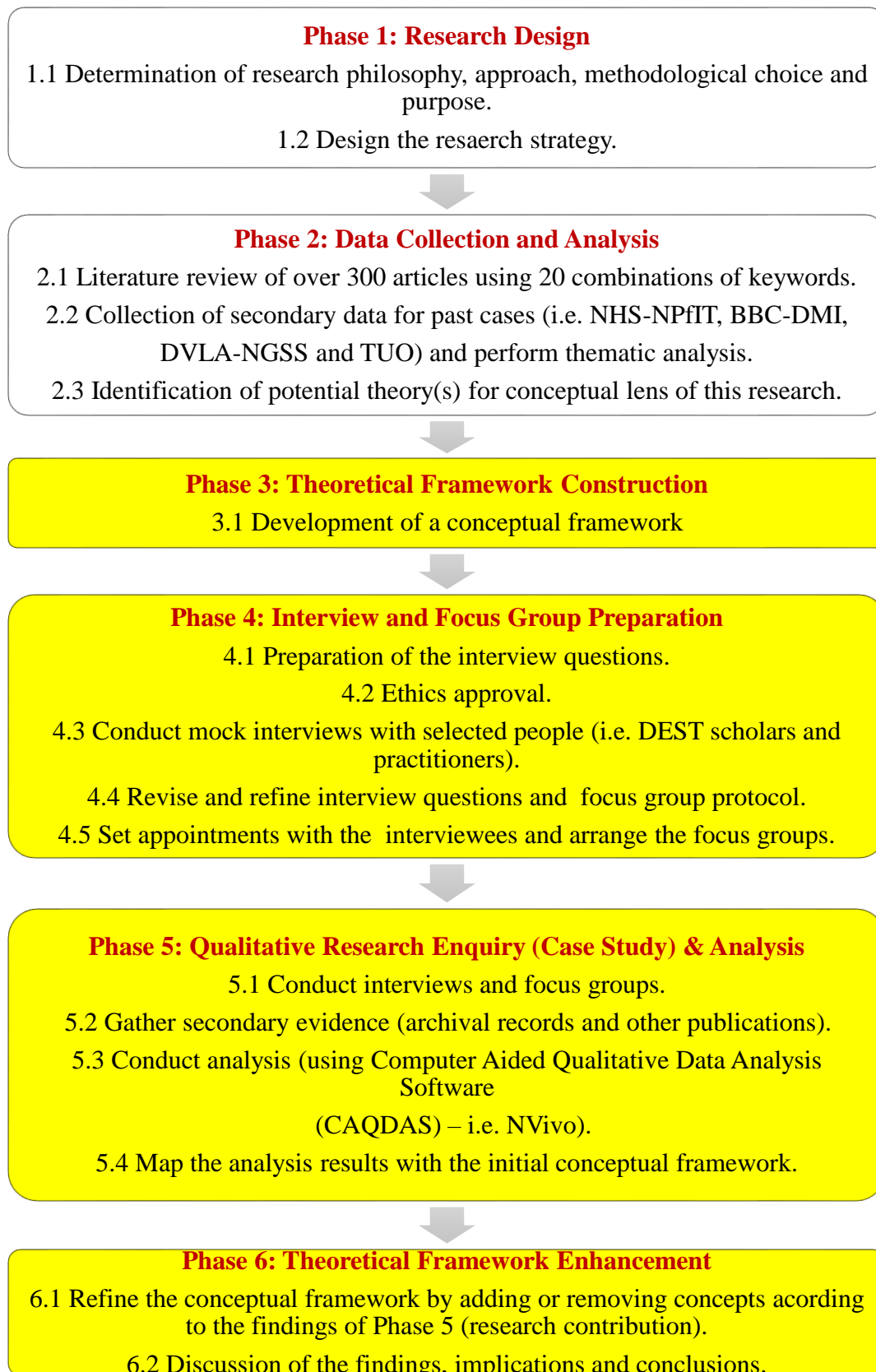


Figure 5-3: Research Design

(Own illustration)

5.6 Research Strategy

A research strategy is a plan of action that is designed to achieve the desired goals. In other words, it will define how the researchers go about answering the research questions. In the “research onion” concept, the research strategy is a layer that links the philosophy with the subsequent choice of methods for gathering and analysing the evidence (Saunders et al., 2016). Therefore, the choice of strategy is guided by the research questions and objectives. Apart from such guidance, the selection of the research philosophy is also determined by other pragmatic considerations, such as the purpose of the research (i.e. to extend the existing knowledge), access to data and the availability of resources (i.e. time, money and labour).

In general, there are eight research strategies available: experiment, survey, archival research, case study, ethnography, action research, grounded theory and narrative enquiry. The strategy selected provides a tool for researchers to answer the research questions. Therefore, the selection of the research strategy(s) should be based on the research problem and objectives (Elbardan, 2013; Barron, 2006). In this research, archival research and case study were chosen as the strategies for the data collection.

Archival research is a strategy that relies on archived documents as the sources for data. The digitalisation of documents has increased the potential of this strategy. Most of the relevant documents, such as reports, statistics, white papers, articles, press releases and audit reports, are available online and can be easily accessed by researchers. These documents are referred to as secondary data, since they were initially created for a different purpose. This fact should therefore be considered by researchers during the analysis, as it will affect the generalisation process (Hakim and Hakim, 2000). Despite this weakness, this strategy offered rich data. Qualitative data from the documents provided indications regarding critical incidents, processes, descriptions of events, the roles of the actors involved, the influences of

environmental pressure and the outcomes of events. Meanwhile, the quantitative data gained from the documents would facilitate comparisons between certain research contexts, such as organisations or geographical locations. Nevertheless, the effectiveness of this strategy would depend strongly on the research questions and access to relevant sources. In general, an archival research strategy would be combined with other strategies, such as interviews and focus groups, when adopting a case study approach to research, that will enhance the research analysis and findings.

Meanwhile, a case study strategy is used to explore certain phenomenon within 'real-life setting' in greater detail (Yin, 2014). Examples of cases are a person, an organisation or an event within a particular research context. The case study is defined by the boundary of the study conducted and the selection of the case (Flyvberg, 2011). This strategy involves understanding the interaction between the subject under study and its context (Saunders et al., 2016; Eisenhardt and Graebner, 2007), and so is widely used in exploratory, explanatory and descriptive research. The case study strategy differs from other strategy with regard to how it is conducted in 'real-life setting'; for instance, an experimental strategy is often employed in a highly-controlled environment setting. Meanwhile, the survey strategy, even if conducted in a real-life setting offers a limited understanding of certain phenomena, as the scope of the data collection is pre-determined. Thus, the case study appeared to be the best strategy for the data collection, in a situation where the boundary between the phenomenon and the context under study was unclear, and a deep understanding is required to generate insights into the phenomenon (Yin, 2014). Such a strategy also enabled rich empirical evidences that contributed to theory development (Saunders et al., 2016; Yin, 2014). In doing so, this strategy is improved by being combined with other strategies, such as archival research and interviews, to form a mixed-method research design. The case study data

collection can be performed using interviews, field notes describing observed events, papers or archives.

In general, case studies are conducted in two dimensions: single case versus multiple cases and holistic cases versus embedded cases (Yin, 2014). The first dimension concerned the number of cases employed, while the second dimension focused on the unit of analysis of the case(s) employed. The descriptions of these dimensions and structures are described in Table 4-3. The selection of the structure depends on the nature of the research questions and objectives.

Table 5-3: Dimensions of a case study

(Own illustration)

Dimension	Structure	Description	Advantages
Single case vs. Multiple cases	Single case	<ul style="list-style-type: none"> • It is utilised for critical, unique or extreme case. • Utilisation for typical cases was aimed at strengthening the existing findings. 	More manageable
	Multiple cases	<ul style="list-style-type: none"> • It focuses on whether the findings can be replicated across the cases under study. • Cases are chosen based on their contextual factors. • Cases that share similar contextual factors. It is predicted that each case will produce similar results (literal replication). • Cases that consist of different contextual factors. It is predicted that these differences will have various impacts on the result (theoretical replication). 	Produced very strong support for theoretical propositions
Holistic case vs. Embedded case	Holistic case	<ul style="list-style-type: none"> • The analysis was conducted on whole organisational units. 	Involved a wider, broader context of analysis.
	Embedded case	<ul style="list-style-type: none"> • The analysis was conducted on selected unit(s) within the organisations. 	Involved a smaller boarder and context of analysis.

The central focus of this research is the institutionalisation of DEST projects in PS, which is a contemporary phenomenon. The analysis seeks to understand what is happening regarding DEST project institutionalisation and seek patterns of interaction processes between the actors and structures, which may be repeated in other, similar situations. A DEST project can have physical components; nevertheless, these are understood differently by different individuals and given meaning by the shared understanding which arises out of social interaction. The conceptual framework was developed through synthesising the lessons drawn from previous DEST project institutionalisation, before it was examined and enhanced through observations and a series of interviews with stakeholders.

The inductive approach to theoretical development involved testing the conceptual framework that was developed from the findings of the initial data analysis. In adopting this approach, the archival research strategy was used to collect the initial evidence. The digitalisation of organisational and governmental documents has increased the possibility of accessing data via the internet. This has also increased the opportunity to obtain rich, informative data that reflect the underlying processes and patterns. Hence, information regarding the institutionalisation of DEST projects has been assimilated from various documents, ranging from scholarly articles, government policies, government orders, project reports, and credential audit findings reports, the websites of related organisations, newspapers and blogs. The use of multiple resources in this study allowed the reasonable triangulation of the data, thus overcoming the weakness data richness (Lee, 2012). Saunder et al. (2016) suggested that, to obtain the maximum from the available data, this strategy should be combined with another qualitative strategy. In this case, it was combined with the thematic approach to facilitate the data analysis process.

The selection of the case study strategy is based on several considerations, which include seeking an in-depth understanding of the phenomenon, meeting the nature of the research

questions, and lastly investigating and developing a mature understanding of the contextual aspects of the phenomenon. In this research context, little was known about the phenomenon under study (Omar, 2014; Omar et al., 2015; Omar and Osmani, 2015). Empirical evidence about the impact of the interplay between the actors and structures when institutionalising DEST projects in PS remains in the early formative stage. In addition to the issue that the boundaries between the phenomenon under investigation and its context are not evident, the context of where DEST is being institutionalised is beyond the researcher's control. To encounter these issues, the case study was chosen to draw on the actors' experiences to help the researcher to set the boundaries (Benbasat et al., 1987; Yin, 2009). The research questions that asked 'how' and 'why' about events, demanded deeper investigations to be conducted in this field. Therefore, it is important for this research to be conducted in a 'real-life context', as offered by the case study strategy. In other words, this strategy facilitated the study of institutionalisation events while they were taking place in their natural context. By doing this, rich evidence, representing different perceptions of the phenomena gained from contextual factors and characteristics that could potentially contribute to theory development would be obtained (Stake, 1995; Yin, 2009). These types of data could not be retrieved by employing quantitative strategies (Eisenhardt and Graebner, 2007). Elbardan (2013) argued that the evolution of the information and communication technology, particularly the internet has caused increased complexity in the IS field – from technological perspective issues to human-technology related issues, such as managerial and organisational problems. Since the case study strategy allows a sound interpretive understanding of the human-technology interaction in the real social setting, it is the best approach for studying and understanding phenomena within the IS domain (Benbasat et al., 1987; Elbardan, 2013; Walsham, 1995a). Therefore, the case study is well suited to capturing the knowledge of practitioners and applying theories

to understand the phenomenon, especially in areas where the researchers lag behind the practitioners (Eriksson and Kovalainen, 2008; Elbardan, 2013).

Although this strategy has been criticised for being prone to the risk of respondent and researcher biases (Yin, 2009), potential bias in this research was avoided by undertaking data triangulation, involving the cross-checking of data with organisational records and descriptions by other individuals. Besides, the researcher's continuous focus on the human elements of the research process was the biggest help in avoiding the bias.

For instance, in avoiding the acquiescence (respondent) bias (i.e. when interviewees / focus group participants demonstrate a tendency to agree with and be positive about whatever the being asked), the researchers had replaced the interview questions that imply there is a right answer with those that focus on the respondent's true point of view. Next, the researcher had kept the engaging conversation and continued to vary question wording to minimize the habituation (respondent) bias (i.e. when when interviewees / focus group participants provide the same answers to questions that are worded in similar ways). Meanwhile, in avoiding the confirmation (researcher) bias (i.e. bias that occurs when a researcher uses interviewees' and participants' information to confirm the researcher pre-existing belief), the researcher had continually re-evaluate the impressions of interviewees / participants', while at the same time challenged the pre-existing belief.

In addition, developing good relationships with some of the interviewees to build trust and cooperation reduced any tendency on their part to misreport events in ways that would favour either the organisation or themselves. Several verification strategies were followed in a rigorous fashion to ensure the credibility (internal validity) and transferability (external validity) and to mitigate the risk of bias, such as member checking while coding, and categorising and confirming the results with the participants.

The case study method was selected as an appropriate research method for the study and the unavoidable weaknesses of case research are accepted as a method-related limitation of the research. Among the limitations are: the data gathered were related only to the case under study; it was impossible to point out the direction of causation (Cavaye, 1996); it was impossible to provide incontrovertible facts regarding the absolute reality, that resulted in a lack of external validity and difficulty in justifying the findings statistically (Venkatesh et al., 2013). The “Universal Credit Programme” was selected to represent a single case study in this research, as it is both an exemplary case containing unique circumstances and a revelatory case, this being one of the first examinations of this phenomenon (Yin, 2009). Therefore, in light of the characteristics of this research, a single case study is appropriate for testing the pre-developed conceptual framework that was constructed based on a synthesis of archival research on four previous DEST projects that were implemented in the UK.

5.7 Time Horizon

The time horizon is an important consideration for research. It can represent a snapshot of the phenomenon under study, or a series of snapshots representing events over a pre-determined period of time. These two conditions are known as ‘cross-sectional studies’ and ‘longitudinal studies’, respectively. Nonetheless, this research was conducted longitudinally.

The decision to conduct this research longitudinally was based on the advantages it offered. Longitudinal study mimics the ‘diary’ perspective, where series of events are studied over a pre-determined period of time (Saunders et al., 2016). A capacity to study change and development is the main advantage of longitudinal research. Moreover, such study also gives the researcher the capability to control some of the variables under study. Longitudinal study can provide powerful insights that enable social researchers to test and develop theory.

Normally, such research is time-consuming, as it requires a longer data collection period in order to generate a series of events. This, however, is not a limitation in this study. The institutionalisation of DEST in the public sector has been debated among scholars for the past decade. Therefore, data on such phenomena were readily available in many forms for re-analysis. Among these sources are scholarly articles, statistics, reports and policy papers. As explained in section 4.6.9, for the purpose of theoretical development, this research utilised the archival research strategy to collect data. This strategy enabled the collection of data dating back to the late 1990s and early 2000s, where the digital transformation of services gained prominence within public sector organisations. Then, the thematic analysis approach was adopted to analyse the data in order to draw findings that will help in forming a conceptual framework. The framework was verified against data collected from a holistic, single case study and presented as the study findings or contribution. Hence, it was possible to adopt longitudinal research, even though this research faced a time-constraint.

5.8 Data Collection, Triangulation and Analysis

The qualitative research methodology was used as the approach in conducting this study. Based on this methodological theme, archival research and in-depth, semi-structured interviews were used to collect the data. This section also highlights the importance of data triangulation and the approach adopted in this research to triangulate the data. The last subsections will provide details about the approach used for the data analysis, which is critical in determining the reliability of the research findings.

5.8.1 Data Collection

The data collection is a critical phase in research which enables the generation of findings that determine the research contribution. Therefore, the selection of the data collection

methods or approach is vital. Figure 2 in section 4.3.4 showed the convention followed in conducting this research. As this research employed the inductive philosophy, the data were collected in two steps – first to create the conceptual framework and second to enhance the conceptual framework created in the previous stage. In the first data collection step, this research depended on archival research as the strategy, meaning that the data obtained were secondary data, whereas the secondary data collection involved semi-structured interviews as an approach to gain evidence that was later used to refine the initial conceptual framework. The details of the both approaches are described in the following section.

5.8.1.1 Archival Research (Secondary Data)

Data that were collected for another purpose than this research are known as secondary data. Both raw and published summaries are included within such data, and the results of the analyses can be used to produce new knowledge, interpretations or conclusions regarding a particular phenomenon (Barnes et al., 2015). Secondary data include both qualitative (text) and quantitative (numeric) data (Saunders et al., 2016). Researchers have classified secondary data into three groups: document-based, survey-based and multiple sources, which combine the two previous types (Saunders et al., 2016; Hakim and Hakim, 2000). This research is based on document data, that includes both text and non-text data. Among other things, the document data included reports, minutes of meetings, newspaper articles, blogs and websites posts, videos, government publications, books and journals. To ensure the reliability of the data obtained, the sources of data were selected based on their credibility. For instance, video recordings of parliamentary debates and montages published by the government departments were used, together with reports published by the government authorities or private companies hired by the government to study the case. In addition, this research also took advantage of the online indexes and catalogues that contained direct

linkages to downloadable files, such as direct.gov. Documents, such as scholarly articles related to the phenomenon under study, were available from online databases, which were accessible through the university library webpage. In this study, the online databases used were Scopus and the Web of Science. These were selected as they are two of the most extensive databases available (Chadegani et al., 2013). According to Chadegani et al. (2013), besides offering an opportunity to search the literature, Scopus and the Web of Science rank journals' productivity and the total number of citations received, which helps researchers to assess the journals' impact, prestige and influence.

The phenomenon of big data, which refers to the production of valuable data through the analysis of existing data that have been collected from different online sources such as statistics and social networking sites, has contributed to the rapid growth of secondary data sources and also increased their accessibility (Manyika et al., 2011). However, not all of the information that was required for this research was available from the big data, and so access to these data had to be negotiated.

The use of secondary data is popular when there is insufficient time to conduct longitudinal research. This represents the main advantage of secondary data use. Since this study focused on examining the effect of the interplay between actors and structures over a certain period of time to enable the generation of findings and conclusions (which have been described as the characteristics of longitudinal research), using secondary data constituted the best option. In addition, this study was time-constrained. Another advantage of secondary data usage was that this allowed the comparison of data from different contexts to produce more generalisable findings, and also enabled the triangulation of the findings. Furthermore, the possibility that secondary data usage might lead to the discovery of unforeseen findings corroborates the adoption of the interpretive philosophy in this research, where the aim is to produce new, richer ways of understanding and interpreting the social world and its contexts.

Such data were also open to public scrutiny, which enhance the reliability of the findings derived from the data analysis. Regardless of these advantages, the main challenge associated with using secondary data for this research was remaining independent of the original sentiments expressed in the data, as it was initially conducted for a different purpose. For instance, newspaper articles and blogs might represent selected perspectives of the writers, based on what they perceived to be significant. This, however, might not represent the general view of such a phenomenon. Therefore, a close scrutiny and careful selection of the facts should be applied.

5.8.1.2 Semi-Structured Interviews

Interviews are recognised as a powerful data-gathering technique for qualitative research that are frequently applied during qualitative research in the IS field (Myers and Newman, 2007). Such a technique reflects the ontological and epistemological stance of the researcher, while maintaining the consistency and coherence of the research structure. Ontologically, the proper way to understand the social reality is to explore the experience, understanding and interpretations of the interviewees, as they represent the social reality. Epistemologically, interviews can generate data by understanding the interviewees' experiences. The interactive approach applied in the interview process can encourage the participants to offer their interpretations on certain issues under investigations. An analysis of the contextual factors involved in this study implies that interviews are able to extract the complexity of the phenomenon comprehensively. Compared to structured interviews, semi-structured interviews can produce a deeper understanding of people and their social worlds (Hermanowicz, 2013). They also support the interpretive philosophy, where the participants are encouraged to express their own views without being influenced by the interviewer's preconceptions (Doolin, 1996), and are thus able to answer 'what' and 'how' questions.

Given the research aim, interviews were considered to be the most useful method for obtaining evidence about the roles of actors and structures within the DEST institutionalisation process. This study involves recognising the actions and structures that emerged when organisations implemented DEST, and how these elements impeded or facilitated the institutionalisation process. Therefore, the stakeholders within the DEST projects, ranging from decision-makers, policymakers, implementers and technical teams, were identified as potential interviewees for this research. In this perspective, all of the actions performed by these stakeholders were considered to make a significant contribution towards shaping the structures of the organisations. These structures tend to be highly contextualised, which means that each organisation would form different structures to suit their context in reaction to DEST project implementation. Hence, a formal questionnaire without detailed guidance would be unlikely to yield a valid result. For this reason, detailed semi-structured interview questions or open-ended questions become necessary. This method was recognised as the best way to gather the main body of data (Yin, 2009). However, the main concern were the reporting media employed during the interview process, so note-taking, supported by voice recording where possible, was identified as a reasonable approach to address this concern (Walsham, 1995a), and was used in this study.

This research involved interviews with seven individuals who are involved with DEST institutionalisation in public sector, i.e. the Universal Credit Programme. These individuals were selected based on their roles in the programme, ranging from the decision makers to the implementers at both central and local government level.

Prior to the actual interview, two pilot interviews were conducted to provide preliminary insights and examine the agenda of the interview questions. The pilot informants were two academicians who specialised in transformational governance. One was a PS service transformation consultant and the other a PS employee. The pilot interviews helped to refine

the data collection plan. The interviewees were invited to comment and provide suggestions regarding any ambiguity within the wording of the interview questions. The questions were tested before progressing with the research to find out whether they extracted the correct information, accessed the detail, encouraged individuals to open up, and were these well-sequenced and topically ordered, as suggested by Hermanowicz (2013). Furthermore, these pilot interviews proved useful in gaining feedback from the practitioners prior to undertaking the main empirical study.

As suggested by Eisenhardt and Graebner (2007), highly knowledgeable informants who view the focal phenomena from different perspectives were interviewed to reduce bias. The interviews were conducted individually in their offices on separate occasions, using the questionnaire as a guide. Using their offices as the interview location facilitated the interview process due to the interviewees' easy access to relevant documents if they needed to check any details or share any relevant materials. At the beginning of the interview, the participants were notified about the research aim and objective, as well as the purpose of the interview and what was expected of them. They were also assured that their responses would remain anonymous and confidential. Over-directing was avoided throughout the interview process. The first section of the questionnaire contained questions that sought to elicit general information about the organisation and the project. The second section focused on the DEST institutionalisation, with the purpose of exploring the roles of the actors and structures within this process. The questions were grouped into themes, to aid the logical flow of the evidence. The participants were not invited to complete a questionnaire; instead, it was used as a guide to direct and structure the open-ended interviews. To clarify or expand on the responses, the interview included probing and prompting queries. Each interview lasted 60 to 90 minutes, and all of them were conducted in English.

The permission of the interviewees was requested to contact them again to check any matters arising or request feedback, as recommended by Myers and Newman (2007). The recorded interviews were transcribed, as suggested by Hermanowicz, (2002). By doing this, the researcher was able to re-listen to the interviews in order to extract direct quotations to support the arguments and identify the findings.

5.8.1.3 Focus Groups

Focus groups are always compared with interviews. Morgan (1996) suggests that focus groups are more productive than interviews, as they can produce up to 70% more input than an individual interview. Hence, this is a good strategy if the number of interviews is limited. Morgan and Krueger (1993) advocate that focus groups are an effective method for exploring complex phenomena. This justified their use to explore the complex process of DEST institutionalisation. Forty individuals were involved as participants in the focus group session. These participants represent various roles at both central and local government levels, including the government consultants. To enrich the data and understand how Universal Credit were viewed, several individuals who are not involved with the Universal Credit project were also invited. This included public administration and IT/IS scholars. An independent facilitator was appointed to conduct the session, while the researcher focused on observation and recording of the discussions.

5.8.2 Result triangulation

Yin (2009) argued that triangulation is crucial when research employs the case study strategy. Triangulation involves the utilisation of several methods and different sources for collecting the data, ensuring their validity and credibility, and analysing and interpreting them. This mimics the explanation of data triangulation proposed by Yin (2009). Similarly, data

triangulation allows the study of one particular phenomenon at different times, with different participants and in different locations. Data triangulation helps to verify facts through multiple-data sources, improves the quality of the data, and so, consequently, the robustness of the findings (Flick, 2009; Myers, 2009). Hence, to perform data triangulation for this study, data were collected from multiple sources, as outlined above.

Data triangulation through the use of case study adds value to the research and its findings, as it offers depth, breadth and richness to the research, as well as enabling the findings to be viewed from multi-perspectives. Since the evidence used to form the theoretical framework was obtained from secondary data, the conducting of semi-structured interviews during the case study offered an avenue for cross-validating the data. This approach allowed the researcher to check whether the data were revealing what the researcher thought they were revealing. Furthermore, as this research was based on the interpretivist philosophy, triangulation was used to challenge the reality revealed by the data. Such a philosophy considers reality, in a study that is related to people's beliefs, attitudes and interpretations, to be socially constructed and multi-faceted, and therefore challenging what was revealed by different sources is essential in order to enhance the rigour of the findings (Denzin, 2012; Saunders et al, 2016).

The involvement of different stakeholders from the same organisation during the interview process contributed to the triangulation of the subjects, based on Myers and Newman (2007) view that is important to avoid forcing one voice to emerge. Moreover, the adoption of this approach helped to minimise the bias (Miles and Huberman, 1994).

The study also made use of triangulation by combining two strategies of questioning within the semi-structured interviews: narrative semantic questions and descriptive and argumentative questions. The research used content analysis through bringing together

strategies proposed by Miles and Huberman (1994), Hsieh and Shannon (2005), Yin (2009) and Zhang and Wildemuth (2009).

In summary, the techniques used for the data triangulation were: the cases study strategy; multiple-informants; generating data through semi-structured interviews; the archival research strategy; the combination of narrative semantic questions and descriptive and argumentative questions; and using combination of perspectives to conduct the content analysis.

5.8.3 Qualitative Data Analysis

The analysis of qualitative data is related to the nature of the data, the nature of qualitative analysis, the method used for the data collection, the approach used to collect the data, and the level of interactivity during the data collection. Therefore, qualitative research should be designed in such a way that it allows the analysis of the data as each interview is completed. The preparation of the data and identification of analysis tools to be used should be carried out in order to facilitate the analysis process. The following sub-sections provide details of each factor and phase to be considered in the qualitative data analysis.

5.8.3.1 The Nature of Qualitative Data

Understanding the nature of qualitative data is of paramount importance in facilitating the data analysis design and process. Qualitative data are associated with the interpretivist philosophy, which was employed in this study. Such a philosophy requires the researcher to make sense of the ‘subjective and socially constructed meaning’ asserted by the research participants regarding the phenomenon under study (Saunders et al., 2016). The meaning and realities are subject to the participants’ interpretations of the phenomenon as well as their interaction with others. Hence, qualitative data are relatively rich, complex, varied and elastic

compared to quantitative data. Because of this, more attention should be paid to these characteristics during the analysis process in order to produce meaningful data. In general, the meanings were derived from words and images, which convey their meaning subjectively. To understand the meaning, the researcher therefore has to explore and clarify whether his/her understandings match the messages that the data are conveying. These actions were performed continuously during the data collection and data analysis process, which means that the data were compared to the research objectives and research questions as soon as they had been collected to decide if further data were needed for the research. As qualitative data are complex, grouping and coding them into themes or organising them into diagrams helped the researcher to make sense of them. For instance, this research summarised the theories used by other scholars to study the institutionalisation of DEST in the form of a pie chart.

5.8.3.2 The Nature of Qualitative Analysis

Two aspects related to the nature of qualitative analysis were used for analysis purposes due to the interactive nature of the research. The selection of the analysis approach depends on the approach utilised for the theoretical development, which later relates to the interactivity of the research.

As mentioned earlier, this research employed an inductive approach to the theoretical development. The research started with the inductive process, which means that the theory was grounded in the data. As the study started without any clearly-defined theory, the evidence obtained from the initial data collection phase was analysed and this synthesis was used to determine the base theory and build a conceptual framework. This was followed by the second data collection phase, where data were used to verify the framework. At that point in time, the research was deductive-oriented. In other words, the analysis was based on the

Institutional and Structuration Theory perspectives, and thus aimed to verify and enhance the pre-built conceptual framework. To achieve this, analysis was undertaken both during and after the data collection to determine the next steps required to complete the study (Strauss and Corbin, 2008). Important themes, patterns and relationships emerged as the result of the analysis performed after the data collection. Thus, in certain circumstances, the researcher is required to amend the research questions and objectives as the findings conflicted with the research propositions. Hence, this nature of analysis permits a higher level of flexibility and interactivity in research that is suitable for the exploratory research design adopted in this study.

5.8.3.3 Preparing the Data for Analysis

Before the analysis process began, the data were gathered from various sources rather than being separately handled. Noting that each set of data makes a unique contribution to understanding the entire phenomenon and thus strengthens the findings, it is important for the data be transferred into digital format, such as .txt, .doc or .gif, for reference and back-up purposes (Oates, 2006; Elbardan, 2013). Therefore, the hand-written notes and interview recordings were typed to produce a transcript of the data.

Transcribing not only requires translating what was said into words, but also adding purely observed phenomena, such as body language and facial expressions, to the texts. This was done to avoid the loss of contextual meaning from the data. As this research is interpretive in nature, this process made a significant contribution to the data interpretation and findings. Hence, to help the researcher to recall the situations and facilitate reflection, a research notebook and self-memos were kept. A research notebook is the chronological record of the reflections and thoughts that occur to the researcher throughout a study, while self-memos are the informal recording of the researcher's ideas, thoughts and reflections captured after every

event, such as interview and data analysis. These two methods are also suggested by Oates (2015) to facilitate referencing during the data preparation and analysis process.

As the analysis progressed, interim summaries was produced to encapsulate the ongoing findings. In this context, the progress findings were presented in journal articles and conference papers, indicating what had been found and how to progress with the study (see Omar et al., 2017; Omar & Osmani, 2015; Omar, Weerakkody, & Millard, 2016; Omar, Weerakkody, & El-Haddadeh, 2014; Weerakkody, Omar, El-Haddadeh, & Al-Busaidy, 2016). After completing the interviews and transcription process, a transcript summary was prepared for each interview, summarising what was observed or said during the interview process. These summaries were then linked to the themes to aid the analysis process.

5.8.3.4 Thematic analysis

Braun and Clarke (2006) described thematic analysis as the “foundational method of qualitative analyses”. Therefore, this method was adopted in this research to identify the emerging themes or patterns through the coding process. The technique also provided a guide on the next steps to take in order to answer the research questions, and also offers an orderly and logical approach to analysing qualitative data, that resulted in rich explanations and theory. Furthermore, thematic analysis allows flexibility in research, as it is free from any philosophical position. Hence, in this interpretive research, thematic analysis permits the exploration of phenomena from multiple perspectives.

As this research is based on the inductive approach, thematic analysis was applied to enhance the research framework based on the data collected from the interviews, following the secondary data collection process. Such an analysis was facilitated by the conceptual framework that encapsulated the predefined themes generated from the literature review and secondary data. A new set of themes were revealed through iterative recoding and analysis.

This fulfilled the task of data reduction through having a clear research design as a means of analysing the qualitative data. This is an appropriate strategy, and Yin (2009, p.36) states that “the complete research design will provide surprisingly strong guidance in determining what data to collect and the strategies for analysing the data is an essential step when doing case studies”.

Data reduction involves “the process of selecting, focusing, simplifying, abstracting, and transforming the data that appear in written-up field notes or transcriptions” (Miles and Huberman, 1994, p.10). The reduction analytical technique helped to develop a clearer picture of the participants’ responses (Miles and Huberman 1994). A list of the codes was prepared, based on the conceptual framework, and modified throughout the analysis.

The conducting of a thematic analysis was based on the procedure recommended by Saunders et al. (2016) that includes: coding of the data; searching for themes and recognising relationships; refining the themes; and testing the propositions.

During the coding process, each set of data was labelled with a particular code to represent its meaning. Defining the coding unit is one of the most fundamental and important decisions in qualitative content analysis (Weber, 1990). The purpose was to aid the identification of the data for content analysis (Zhang and Wildemuth, 2009). This study utilised individual themes as the coding unit, rather than words, sentences or paragraphs, which tend to be used in quantitative content analysis. According to Saunders (2016), a theme can be expressed in a single word, phrase, sentence, paragraph or entire document. Therefore, a code can be assigned to a text chunk of any size, as long as that chunk represents a single theme or issue of relevance to the research questions. Coding the sample text, checking the coding consistency and revising the coding rules is an iterative process that continues until sufficient coding consistency is achieved (Weber, 1990).

The next step was to search for the themes and identify the relationships within the coded data. The self-memos, research notebook, progress summaries and transcript summaries significantly helped with this process. The step began with a long list of codes, representing the meanings derived from each set of data. Then, several themes were formed by grouping together codes that were related to each other, and such groups were linked to the research questions. Questions such as ‘what are the key concepts in these codes?’ and ‘what patterns are evident in the coded data?’ were asked to facilitate the procedure.

Rowley (2002) suggested that a conceptual framework provides an effective analytical tool in exploratory study, as it helps the researcher to organise the case study and identify the relationships between the themes. In this research, the initial framework that was built incorporated the themes that guided the next level of the data collection and analysis. The themes, derived from multiple sources of evidence, were compared to obtain descriptions that could be used as evidence (Rowley, 2002). According to Miles and Huberman (1994), this method is ‘the best defence against overload’.

The study utilised Institutional Theory and Structuration Theory to study the roles of the actors and structures in the institutionalisation of DEST in the PS. The manner in which the actors responded to this policy instrument often depended on their knowledge of and the values that they assigned to DEST, as well as the structures that accommodate their actions. This led to an investigation of how these actions shape the organisational structures, which eventually permits or limits the subsequent actions that affect the DEST institutionalisation process. DEST represents a new legitimacy in PS.

Institutional Theory is relevant for understanding the impact of internal and external influences on organisations that are engaged in IT-induced change (Weerakkody et al., 2009), as well as the stages of the institutionalisation process (Scott, 2014), whereas Structuration Theory helps us to understand how the institutionalisation process happened through the

interactions between the actors and structures, in order for DEST to achieve the institutionalised stage in PS practice. Few have utilised Institutional Theory and/or Structuration Theory to investigate the underlying process of IT-enabled change in PS. Weerakkody et al. (2009) found that Institutional Theory has been used to study IS implementation across different contexts.

However, Institutional Theory focuses on the action of collective actors, rather than an individual actor, and limits the generalisability to a selected social phenomenon through the analysis of the organisation fields whereas, in the public sector institutions, the societal structures and processes which influence the actions of human actor are inseparable, so the use of Institutional Theory does not offer an adequate understanding of this phenomenon.

Several studies have employed Structuration Theory to overcome these limitations (Basettihalli et al., 2010, Jones and Karsten, 2008; Walsham, 2002). Through the “duality of structure” concept, Structuration Theory examines how human actions implicate structure formation over time in a social context. Thus, the combination of these two theories offers a sound conceptual basis for studying transformational change in PS environments and helps to identify the relationships between the themes.

The final step taken in thematic analysis was to refine the themes and test the propositions. In such a process, the data set, codes and themes were continuously examined by re-reading and re-organising the exercises to ensure that the themes were meaningful and interrelated. This procedure was known as the themes refining process, and resulted in the combination, separation and addition of themes, as well as the redefinition of the relationships between them, as they changed. As the pattern of relationships emerged, the next set was to develop testable propositions. Since the relationships were apparent, the propositions were tested in order to generate conclusions and explanations. To ensure that well-grounded conclusions were formed, their ability to withstand alternative explanations was examined by rigorously

testing the propositions against the data. By doing this, the researcher was able to detect any negative implications of the findings and explanations. The findings that failed to match the analysis were seen as positive, as they potentially represent the study's limitation or directions for future study.

In conclusion, thematic analysis offers a systematic approach to qualitative research, as it provides flexibility. The analytical procedure for this approach was not overly prescribed (Saunders et al., 2016), yet is able to produce descriptive or exploratory accounts that are appropriate for this research.

5.8.3.5 Use of NVivo

Computer Aided Qualitative Data Analysis Software (CAQDAS) – in particular, NVivo – was used in this study to facilitate the data analysis. The software facilitated the management of large amounts of data (Baxter and Jack, 2008). Besides being easy to use, the main advantage of using NVivo was it has ensured continuity of data during the analysis process (Lewins and Silver, 2009). Furthermore, the use of its electronic database enhanced the recording, storage, organisation and retrieval of the data, which also facilitated the coding and re-coding process. The software also helped with the memo writing and the linking of the memos to relevant pieces of text in different documents, which enhanced the interpretation and discussion of the data from different perspectives (Flick, 2009). All of these features enhanced the rigour of the findings (Myers, 2009).

Nevertheless, the iterative, interactive process of interpreting and reflecting the meaning of qualitative data could be better captured and synthesised by using mechanical tools. Therefore, a gradual and thoughtful process was found useful here, despite the availability of software to assist with the data analysis.

5.8.3.6 Criteria for Evaluating the Trustworthiness of the Research

Yin (2009) outlined four criteria to evaluate the trustworthiness of research: objectivity; reliability; internal validity; and external validity. These criteria however mimic positivist research, and so are unsuitable for other research categories (Lincoln and Guba, 1986; Díaz Andrade, 2009). Therefore, Morse et al. (2002) argued that an outline was needed to measure the trustworthiness of other research, especially interpretivist research. This led to the emergence of conflicting criteria among scholars (i.e. Guba and Lincoln, 1994; Morse, 1999). According to Guba and Lincoln (1994), trustworthiness in interpretive research is driven by trustworthiness (validity), conformability (objectivity), dependability (reliability), credibility (internal validity) and transferability (external validity). Disagreeing with such criteria, Morse (1999) suggests that the claim that validity as a relevant criterion for qualitative research is a “*myth*”.

Regardless of the debate, the trustworthiness of the current study was increased by adopting four practices; namely, credibility, generalisability, conformability and dependability.

The credibility of qualitative research mimics the validity of quantitative research. (Guba and Lincoln (1994) defined credibility by the extent of the result accuracy, reality matching and correct measurement in research. Therefore, to ensure its credibility, this research collected the right data from the right source. In addition, prior to the actual interview sessions, the interview questions were checked by two academics and a pilot interview was held with two experts. The research depended on qualitative data that aid the understanding of relationships and the reasons underlying a relationship by offering an explanation of what happens. This is essential for research validity (Eisenhardt, 1989). As suggested by Bryman and Bell (2007), the participants’ comments were included as a supportive tool to confirm the collected data before moving on with the project. This technique made it possible to refine, clarify and

expand on the understanding of the collected data. Then, a draft of each case study report was e-mailed to the key participants for verification and feedback purposes, an approach that was supported by Yin (2009, p. 183). Moreover, results triangulation, as discussed in Section 4.8, has been applied in order to accommodate more than one perspective.

Generalisation emerges when findings can be applied to cases other than the one examined in the study (Collis and Hussey, 2009, p. 59). However, Yin (2009) argued that case results cannot be statistically generalised. Rather, case studies depend on analytical generalisation. Hence, this study seeks to gain a deeper understanding of the phenomenon, which can then be used to inform other settings later (Orlikowski and Baroudi, 1991). Nevertheless, the validity of undertaking such generalisations relies on the plausibility of the logical reasoning used in describing the findings and drawing conclusions from them (Walsham 1993). The framework generated in this study presented theories in a diagrammatic model, which can provide a basis for further research in a different context. Despite the case study's uniqueness, the findings from the case may provide an example of broader classes of things that enables generalisation. Sufficiently detailed descriptions are provided so that a judgement can be made regarding whether other situations share similar features, so that the findings might prove relevant there, too (Lincoln and Guba, 1994). As such, this research provides thorough descriptions of the case used to promote matching with other cases (Bryman and Bell, 2007).

Unlike positivist research, the interpretive researcher is not free from researcher bias. As the research was based on interactions with the participants, the researcher potentially has a certain degree of influence over them. To reduce the bias, the questions posed during the interviews were linked to the research questions (Rowley, 2002). Moreover, the use of various sources to obtain the data and the verification of the case study by the key person may similarly help to reduce this bias (Yin, 2009).

The last criterion for determining trustworthiness is dependability. The case study protocol was strictly followed in this study to enhance the dependability of the research. This encompassed fully transcribing the recorded data and creating a digital database in which to store the secondary data and other evidence related to the case study. As such, all of the supporting evidence was easily retrievable for reference or review.

5.9 Ethical Considerations

Ethical issues are critically important in social research, particularly in qualitative research (Tilley and Woodthorpe, 2011; Myers, 2009). Ethics refer to the standards of behaviour guiding conduct when carrying out research, which is related to the rights of those who become the subjects of the study, or are affected by it (Saunders et al., 2016). It also governs how the results are reported (Collis and Hussey, 2014). This conduct is subject to the influence of social norms, which outline the type of behaviour that the researcher should adopt in certain situations (Saunders et al., 2016). Two views outlining norms are the deontological and the teleological view, which adopt conflicting ethical positions. The deontological view perceives acting outside the outlined rules as unacceptable so, when the researcher encounters a situation in which the rules are insufficient or challenged, he/she should request that the rules be amended (Saunders et al., 2016). In contrast, the teleological view accepts conduct that is justified by the consequences rather than being based on pre-determined rules. Hence, this view appreciates conduct that can outweigh any negative consequences. To avoid the dilemma of choosing which view to adopt, this study was regulated by the code of ethics outlined by Brunel University Research Ethic Committee.

According to the guidelines provided by the committee, both the researcher and supervisors were obliged to sign the research ethic form, which was later submitted to the committee through the system provided by the research office. The conducting of the research is subject

to approval by the committee. This research received such approval (see **Appendix 1**) and was guided by the outlined code of ethics.

The university's code of ethics contained a list of general principles related to the conducting of research. The ethical considerations included in the code of ethics governed the aspects outlined by Collis and Hussey (2014), such as avoiding harm to the participants, voluntary participation, and the right to confidentiality and anonymity (Collis and Hussey, 2014).

This research considered all of the ethical requirements throughout every phase of the study. For instance, in the introduction to each interview, the participants were given information about the interview's general purpose and duration. To ensure the standardisation and clarity of the message delivered to all of the participants, a similar statement was used to explain as fully as possible what the participants would be questioned about, the aim of the research, who was undertaking it, its possible contribution and, finally, how and where its results would be disseminated. The participants were informed about the aim and importance of the research as well as the significance of their participation. They were also assured that their participation was voluntary and that they were allowed to withdraw from the research at any stage. This was stated in conformity with the code of ethics on conducting research with human participants, by "informing participants about the nature of the study, and respecting their freedom to decline to participate in or withdraw from the research in any time" (Kratwohl, 1997, p.212). Moreover, Payne and Payne (2004, p. 68) highlight that the participants should "be enabled freely to give their informed consent to participate, and advised that they can terminate their involvement for any reason, at any time". Additionally, the participants were assured that they would remain anonymous in the research, which ensured the confidentiality of their responses. Anonymity involves the protection of the identity of an individual or company by concealing their names or other identifying information, while confidentiality means the protection of information supplied by the

research participants. These details were protected through the use of pseudonyms and the removal of any information that might lead to the identification of the study participants. This approach enabled the participants to be open and frank when sharing their personal beliefs and experiences.

In order to facilitate access to the organisations, confidentiality approval was sought and obtained from the university authorities in the form of an assurance to the organisations and individuals involved regarding absolute anonymity and confidentiality as well as the judicious use and control of the data obtained. The researcher obtained a letter (see Appendix 2) from Brunel University, London, confirming that the data collection was being conducted as part of a PhD project, and presented it to the participants. During the data collection process, a consent form (see **Appendix 3**) was given to all participants, who were requested to sign it in order to indicate that their participation in the research was voluntary.

In sum, it was important to maintain ethical standards during the interviews. These involved: obtaining ethical approval from the relevant ethics committee and permission from the interviewees; treating interviewees with respect for their time, position and knowledge; keeping records and transcripts confidential and secure; and providing feedback to subjects and organisations, as recommended by Myers and Newman (2007).

5.10 Conclusion

This chapter explained the research design and methods used in the study. The research methodology adopted in this research is summarised in . The researcher explicitly articulated the nature of the research problem and determined the ontological stance which facilitated the definition of the epistemological and methodological stances.

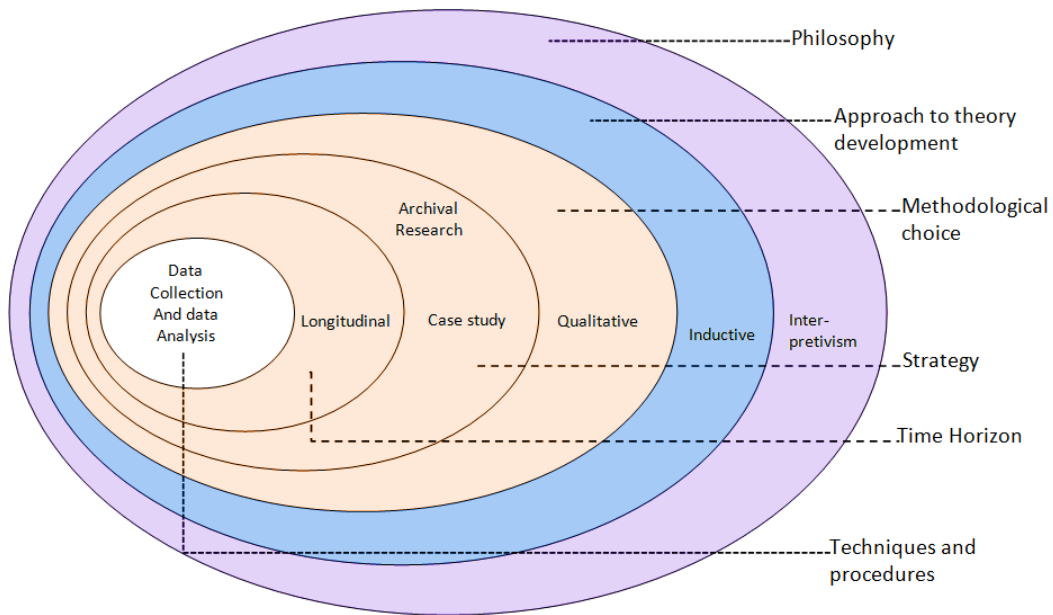


Figure 5-4: Methodology adopted for this research

(Own illustration)

The study was designed under an interpretive paradigm, which took the form of a multiple-case study and the analysis of a considerable amount of primary and secondary qualitative data. This enabled the researcher to interact closely with the participants and explore issues in depth. Researchers should be aware that the qualitative methodology is more applicable when seeking to develop an in-depth understanding of contextual-related problems. A qualitative design is more sensitive to the context and flexible in embracing emerging new themes.

The inductive research philosophy allows a rigorous approach to theoretical development. Furthermore, the richness of the data produced through archival research (including audio visual materials), interviews and focus groups considerably assisted the investigation of the actors and structures' roles within the public sector DEST project institutionalisation process. The use of case studies provided greater internal and external validity compared to other quantitative methods. The triangulation of the methods was achieved through the use of semi-

structured interviews and non-participant observation. Qualitative content analysis was found to be the most appropriate technique for analysing the data. A qualitative content analysis technique was deemed more desirable for this study, as it preserves the deep meaning of the qualitative data as far as possible. Furthermore, it enabled the interpretation of all of the transcribed interviews, documents and observation notes, relating each component to the whole in order to gain a holistic picture of the phenomenon. The trustworthiness strategies which were used in this research and the related procedures and techniques were found to be interlinked, which fostered the coherence and validity of the research.

Chapter 6

CHAPTER 6 : THE CASE OF “UNIVERSAL CREDIT PROGRAMME”

6.1 Introduction

“Stories are best of all, because while hard data may suggest some relationship, it is this kind of rich description that best helps to explain it.” (Mintzberg, 2005)

This chapter provides narrations regarding the case of Universal Credit (UC), a program that transformed the old benefit system in the United Kingdom. Assuming that knowledge is constructed, rather than discovered, i.e. the epistemology stance which is shared by Stake (1995 cited in Yazan, 2015) and Merriam (1998 cited in Yazan, 2015), the researcher explores the case through two steps. First, the researcher tries to understand the meaning and knowledge constructed by the research participants regarding the DEST institutionalisation process. Next, such meaning is interpreted based on the researcher’s own knowledge and experience. In other words, the case represents a filtered perspective of the participants’ collective meaning regarding the research subject. The researcher’s experience of the implementation of various public sector transformation projects had influenced the meaning or sense-making brought into the study.

This chapter is divided into six sections, including the introduction. Section 6.2 presents the research contextualisation, followed by section 6.3 that provides the evolution of the benefit system in the UK. Next, section 6.4 provides a description of the UC program. This is followed by section 6.5, that reports the status of the UC institutionalisation process, and section 6.6 concludes this chapter by providing the way forwards.

6.2 Research Contextualisation

The fast pace of technological and social evolution in today's world has shifted people's behaviour and expectations (Solis, 2016). This is the era of Digital Darwinism, where the rapid movements in the institutional landscape increase the volatility of the future, thus requiring various organisations to compete intensely over seizing current opportunities (Omar et al., 2017).

As for the public institutions, the use of digital technology resulted from changes in the management style, i.e. New Public Management, and become rampant during the Digital Era Governance, where the concept of e-Government surfaced. Such technology is used to transform various government practices related to process and service delivery in many countries, including the UK. In 2016, the UK was top of the United Nation's e-government development and participation rankings (United Nations, 2016). The country introduced its first digital strategy in the mid-1990s. This commitment was renewed in 2012, with the introduction of another digital strategy. Various digitally-led service innovations flourished throughout this period, including the National Program for Information Technology (NPfIT), which aimed to transform the way in which patient records were managed in the UK's National Health Service. Nonetheless, this project ended up being the biggest Digitally-Enabled Service Transformation (DEST) fiasco in public sector history and was terminated in 2013 (Omar and Elhaddadeh, 2016). Statistics reveal that many other large government-initiated DEST projects initiated, such as the Digital Media Initiative of the British Broadcasting Corporation (BBC) and the Common Agricultural Policy Delivery Programme (CAPD) were derailed (NAO, 2015, 2014).

While some of these innovations failed to be institutionalised, others successfully become embedded and sustained the new practices, such as the "Tell-Us-Once" programme.

Astonishingly, knowledge about what caused these processes to emerge and what underpins their sustainability as institutional practices was scarce.

Studying the institutionalisation process is another challenge, as it may take a long time to succeed. Even if it does, the ability to recognise institutionalised practices poses a different challenge. Hence, this study remains difficult, if not impossible. Nonetheless, an exploratory case study may potentially shed light on this area. Experts agree that this approach is one of the hallmark approaches to qualitative inquiries (Marshall and Rossman, 2016), due to its ability to explore the rich aspects of the social phenomenon (Creswell, 2007). Moreover, this approach is popular in the business research sphere for facilitating in-depth inquiries to enable the exploration of a research problem that is situated in the social sphere (Saunders et al., 2015), because it allows the expansion of conversations regarding the construction of the social world, thus enabling the phenomenon to be viewed and debated across various perspectives (Donmoyer, 2009). Subsequently, this approach will help the researcher to produce robust theory (Gustafsson, 2017).

This research involves this exploratory effort, and its purpose is twofold: first, to identify certain factors associated with DEST's emergence and institutionalisation in the public sector for further research and, second, to operationalise the real case of DEST in PS that depicts an institutionalization process. Although DEST in PS has been widely discussed in the literature, the majority of the inquiries rarely attempted to understand the process and whether the DEST had become institutionalised.

This research seeks to produce a richer understanding of the institutionalisation process of a large-scale DEST in the public sector. Since institutionalisation is a process that requires space and time, the researcher decided to perform a longitudinal study of the Universal Credit (UC) Programme.

The decision to select UC as a single case study in this research was made after evaluating and meeting the ‘five rationales of a single case’, outlined by Yin (2018), as follow:

- (i) UC case is critical to understanding the proposed theoretical concepts.
- (ii) UC represents a unique and extreme case of DEST in the public sector – as it is the largest and most critical digitally-led service reform in the UK’s public sector history (BBC News, 2017; Oakley, 2013; Timmins, 2016a).
- (iii) UC elucidates the common, everyday circumstances and conditions of the public sector institution, to enable the study to draw on the lessons for other public institutions.
- (iv) UC is a revelatory case, because it reforms the UK’s benefit system that was last revised more than seven decades ago (Conservative Party, 2010; Field and Forsey, 2016).
- (v) UC provides a basis for longitudinal study, as it allows the researcher to understand and specify how changes concerning the unit of analysis of this study have evolved over time since its ideation in 2002 (Timmins, 2016).

6.3 Historical Account of the Legacy Benefit System in the UK

The history of benefit system in Britain, better known as the “welfare state”, is rooted in the 19th century (Field, 2011). Nonetheless, during that period, societies, public volunteers and the local authorities provided welfare voluntarily. Among them were the churches, that provided health care services and the parishes that helped beggars. With the passing of time, such concepts evolved but remained strong, despite the modifications, causing the introduction of many refined versions. For instance, in 1906, the government introduced the pension age, followed by the introduction of National Health and Unemployment Insurance five years later. Then, in 1925, the government introduced the Widows and Orphans Benefit. In 1942, the famous Beveridge proposal was produced to redesign Britain’s welfare system, immediately after the end of World War Two. This proposal urged immediate action to be taken in order to tackle five key issues confronted by the citizens of that period, i.e. poverty, disease, ignorance, squalor and idleness. This led to the development of many welfare-related

acts across five themes, as outlined in table 5-1. The growth was also due to the immense socio-economic pressure suffered by Britain in the same year (Field, 2011).

Table 6-1: The Introduction of The Welfare State

(Adapted from BBC Bitesize, 2014, available from http://www.bbc.co.uk/bitesize/intermediate2/history/cradle_to_the_grave/welfare_state)

Themes	Acts
Social Security	Family Allowances Act (1945) - 5s a week for each child after the first.
	National Insurance Act (1945) - unemployment pay for six months and sick pay for as long as you were sick.
	National Assistance Act (1948) - benefits for anybody in need. 'The Times' described it as: 'the last defence against extreme poverty'.
National Health Service (NHS)	National Health Service Act (1948) - despite opposition from doctors, who insisted on the right to continue treating some patients privately, Aneurin Bevan, brought in the NHS on 5 July 1948. Doctors, hospital, dentists, opticians, ambulances, midwives and health visitors were available, free to everybody.
Free Education	1944 Education Act - 'Rab' Butler set the school-leaving age at 15, and introduced free secondary schools. Pupils took an '11-plus' IQ test that determined whether they went to grammar school (for academic pupils), secondary modern school (to learn practical subjects), or technical school (to learn practical skills).
Council Housing	Town and Country Planning Act (1947) - set a target of building 300,000 new houses a year and 1.25 million council houses were built between 1945 and 1951. It also defined green belt land that had to be kept rural.
	New Towns Act (1946) - authorised the building of new towns in places such as Stevenage, Basildon, Newton Aycliffe and Peterlee.
	Children's Act (1948) - required councils to provide good housing and care for all children 'deprived of a normal home life'.
Full Employment	Marshall Aid (1948) - the government used Marshall Aid to promote industry. The government nationalised the road haulage, railway and coal industries in 1947 and the steel industry in 1951.
	By adopting the ideas in the economist JM Keynes's book, the "General Theory of Employment, Interest, and Money" (1936), the government learnt how to keep the economy vibrant by increasing public spending. This meant that there has never been a depression like that experienced in the 1930s.

According to Andrews (2017), the pressure caused great austerity in Britain, depriving many of the citizens both mentally and financially. This triggered the official establishment of the welfare state in 1948. Many key events unfolded following this establishment, until the idea

of reforming the legacy benefit system, better known as “the Easterhouse Epiphany”, emerged in the year 2000 (see Table 6-2).

Table 6-2: The Evolution of Welfare State

(Own illustration)

Year	Events
1948	The welfare state was founded in Britain.
1961	Geoffrey Howe (after that become the Chancellor in the Thatcher cabinet) advocated the vision of tax credit (i.e. negative income tax) to produce a more seamless system, and concentrate financial help on the less well-off in a more selective way.
1964	Douglas Houghton (Labour MP) explored Howe’s idea. The Liberal Party (now the LibDems) favoured the idea. It became clear that, even with the rising earnings for a family (if they made multiple claims), that family could be worse-off because of the concomitant tax and national insurance that they had to pay.
1970	Sir Keith Joseph (Conservative MP) introduced Family Income Support (FIS), which was intended to provide a short-term fix to address the in-work poverty of families with children, until a better policy could be devised.
1986	FIS was replaced by Family Credit, but this did not entirely solve the income issues.
1990	Radical changes happened in the market due to globalisation. The unemployment rate dramatically increased as the jobs created during the Industrial Revolution were stripped away. The number of disability benefit claimants increased as jobless people with health issues were declared “disabled” in order to conceal the “unemployment rate”.
	Over six million people (one in seven of the working-age population) were claiming unemployment benefits. This issue slowly attracted the attention of the politicians, who demanded a conceptual shift - to fund people to be in or actively seeking work, rather than to fund people NOT to work.
1994	Kenneth Clarke (i.e. the Chancellor during John Major’s Cabinet) and Peter Lilley (i.e. the Social Security Secretary) declared that the welfare policy objective was to “build bridges out of dependence”. Both launched a series of welfare-to-work pilots, including the short-lived earnings top-up that effectively provided a version of Family Credit for single people and childless couples, plus a limited scheme of direct subsidies for employers to take on long-term unemployed people.
1997	The Labour party came to power and launched 'New Deal for the Unemployed' – a welfare-to-work programme for jobless people, replacing Family Credit (FC), that aimed to ensure that being in work paid more than being on benefits and reduce child poverty.

1999	Working Families' Tax Credit (WFTC) was introduced to replace FC, while retaining much of its features. WFTC was presented as a tax cut rather than a benefit, and represented a closer "integration of the tax and benefits system".
	The new credit was administered by HM Revenue & Customs (HMRC) rather than the Department for Social Security (DSS, now the DWP) that used to run FC. Critics called this a mistake, because the DSS was the expert at paying out weekly or fortnightly benefit claims, and good at dealing with people on very low incomes with no financial cushion, in contrast to the HMRC that was used to bringing money in for the government (rather than paying it out).
	WFTC doubled the number of claimants. It was then redesigned and divided into two parts: Child Tax Credit (CTC) and Working Tax Credit (WTC).
	CTC was implemented. It was means-tested and paid to the families with children, regardless of whether any of the adult members were in work.
2000	WTC was introduced for low-paid working couples aged 25 or over, with or without children.
2002	Easterhouse Epiphany: Ian Duncan Smith announced the idea of welfare reform.

6.4 Universal Credit's Implementation

“Universal Credit: welfare that works’ marks the beginning of a new contract between people who have and people who have not. At its heart, Universal Credit is very simple and will ensure that work always pays and is seen to pay.” – The Rt Hon Iain Duncan Smith, MP, (former) Secretary of State for Work and Pensions (2017)

Ideated in 2002, Universal Credit (UC) was a new form of benefit system that was officially introduced by the UK government in late 2011 to replace the ‘legacy benefit’ system of the country, as the latter was now regarded as the biggest trap keeping claimants on benefit. The government believed that such a transformation was prudent in producing a mechanism that could help claimants in work to prosper, i.e. by making the transition to work more manageable as well as making it pay, rather than continuously being in a state of unemployment, poverty and welfare dependency. Hence, UC was designed to help low-

income bracket and jobless claimants, including people with disabilities, claimants with health issues, single parents, house owners and tenants, to meet their living expenses.

With the help of information and communication technology, UC simplifies six types of benefit payment into a single, monthly payment, calculated based on real time information (RTI) about the claimants' earnings provided by HM Revenue and Customs (HMRC). The affected benefits schemes were Jobseeker's Allowance (JSA),¹ Income Support (IS),² Employment and Support Allowance (ESA),³ Incapacity Benefit (IB),⁴ Carer's Allowance (CA),⁵ and Tax Credit, which consisted of Child Tax Credit⁶ and Working Tax Credit⁷ (House of Commons, 2011).

Hence, the UC system would gradually withdraw payment as claimants either returned to work, or increased their working hours. It was believed that, by doing so, the income of over 800,000 claimants would rise above the poverty line.

UC was envisaged as a system that would remain alert to the fluid-realities of the claimants' lives that affected their benefit eligibility. Hence, it was hoped that UC would help to reduce the chance of errors occurring during the claims process and benefit fraud. From this point onwards, the UC programme encapsulated the task of transforming the business process of

Source: House of Commons, 2011, pg. 4-6

¹ **Jobseeker's Allowance** is payable to people who are not in full-time paid work (defined as 16 hours or more a week), but who are available for and actively seeking work.

² **Income Support** is a non-contributory, means-tested benefit for certain groups who are not expected to be available for or seek work, including lone parents with younger children, disabled people, people incapable of work and carers. Benefit is not payable if the person is in full-time work.

³ **Employment and Support Allowance** is payable to people who are not in full-time work and who have a "limited capability for work" because of sickness or disability.

⁴ **Incapacity benefits** (Incapacity Benefit, Severe Disablement Allowance and Income Support) are paid on the grounds of incapacity for work).

⁵ **Carer's Allowance** is a non-contributory benefit for people who are providing 35 hours or more care per week for a person who is entitled to the middle or higher rate Disability Living Allowance care component.

⁶ **Child Tax Credit**, payable to people with children to provide financial support for families with children, whether in or out of work.

⁷ **Working Tax Credit**, payable to people in low-paid work, including those without children.

the benefit structure against the larger canvas of Britain’s long-institutionalised welfare system, instead of providing digital tools for enabling welfare system..

As such, the scope of the UC programme’s implementation expanded to include non-technical issues, especially the ‘people aspect’, that was the backbone for its successful execution. Hence, the question of the public institutions’ capacity and capability to fulfil the UC’s objectives, which are intricately related to ‘empowerment’ issues, linger within the backdrop of the two parallel national issues of the UK Government’s devolution plan and budget cuts, where the grassroots institutions, such as the local agencies and councils, are expected to do more with less.

In early 2011, the UC programme commenced with a design and build phase, followed by the awarding of contracts to the developer between September to November of that same year (Malik, 2014). Despite this scenario, UC was named one of the 25 exemplary DEST projects undertaken by the Government Digital Service (GDS), which reported as *“always displaying positive things regarding the UC, because GDS’s performance depends on it”*.

Table 6-3 outlines the key events that emerging during the first two years of UC’s development.

Table 6-3: Universal Credit in the First Two Years of its Development

(Own illustration)

Timeline	Events
January 2011	<p>The project's "design and build" phase commences , with a declaration that UC will follow the agile approach to IT programme development, because the waterfall approach will delay its roll-out to April 2015 (i.e. to develop UC after a detailed policy regarding it has been approved by Parliament, which would be 2012 at the earliest).</p> <p>The October 2013 timeline pressures the DWP to act quickly and tightly manage the programme.</p>
January 2012	<p>The DWP announces that UC will follow the Agile 2.0 approach - a hybrid of the agile and waterfall approaches to IT programme management.</p>

Mid-2012	The DWP's proposal on the IT infrastructure is rejected by the Cabinet Office. The MPA identifies that the UC team was allowed to work with generous independence. This creates a 'defensive culture' and 'green-shifting habits' of concealing unfavourable news.
September to November 2012	The DWP restructures the UC programme to address concerns, but the focus remains on the pathfinders that due to be performed in a short-term. UC's Programme Director and Director of IT are replaced by new personnel, each with responsibility for managing the pathfinders' execution, October roll-out and claimant migration.
October 2012	The regulatory framework is laid down in parliament.
November to December 2012	The DWP had largely stopped developing systems for national rollout and concentrated its efforts on preparing short-term solutions for the pathfinders. The senior responsible owner also took action to try to improve supplier and project governance.

In February 2013, in a post-review report, the Major Projects Authority (MPA) expressed their concerns regarding the absence of a project blueprint and plan for UC transition. It was also discovered that the DWP has failed to address two thirds of the MPA's review in 2012, besides relying on the external report for progress assessment. Immediately, the MPA was asked to provide a 13-week reset plan, extending from February until May 2013. The aggressive advocators of the agile approach to digital system development from the GDS and MPA were pulled into the DWP to work on UC during the reset period. Within this period, the MPA was authorised to intervene in the programme, using interventions including the "digital as appropriate" approach instead of digital by default and to initiate four pilots in April 2013 using the original system with one type, the simple case of benefit payment (i.e. Jobseekers allowance), together with a further 99 recommendations (Timmins, 2016b). For several reasons, the leadership of this team changes twice, with the newest successor conducting a 100 days review that led to the conclusion that there had been a serious communication breakdown between the team who had been brought in by the MPA and the

original UC team. This scenario led to the proposal to adopt a “twin track approach”,⁸ following an attempt to combine the two systems built by the GDS and UC teams failed due to the “entrenched attitudes” of the members. This decision was partly influenced by the findings of the external auditor (i.e. PWC), who were commissioned to review UC’s progress, and concluded that the UC’s suppliers had performed well.

At the same time, the pilot study results reveal that the UC’s plan to pay housing benefit directly to tenants would increase the workload. Despite this negative progress, Parliament was assured that UC was well under way. However, two months later, a problem arose when UC’s national rollout plan was scaled down and delayed, in the same month as UC launched a limited ‘pathfinder’ to test and learn about the related policy and processes. In the following month, DWP realised that 17% of its IT infrastructure (worth £34 million) was unfit for purpose and needed to be written off. This is when the DWP admitted to being unclear about the future plans regarding UC roll-out. Nevertheless, as this happened, the DWP in-house team developed a new system to enhance the functionality of the UC’s live service operation. It was not until July 2013 that UC’s pathfinder was expanded to four sites with approximately 1,000 new claimants, but it was narrower in scope to cover the simplest form of new claims. With limited IT functionality, some of the processes involved required manual intervention, thus reducing the scalability of the pathfinder model. Two months later, the National Audit Office released an early progress report for UC, revealing three important insights:

- i. The weak progress of the UC program was due to “weak management, ineffective control, and poor governance.”
- ii. The UC’s failed IT programmes (worth £34m) has been written off by the minister.
- iii. The UC national rollout would be delayed until at least 2018.

⁸ The ‘twin track’ approach refers to software development where existing software is used to run the system until the new or permanent software is completed and ready for migration.

Concluding that UC could not meet its initial delivery target of October 2013, the report angered many stakeholders, especially the policy-makers, and provoked much criticism as well as suggestions. Among the suggestions was a plan to rescue UC by scrapping £119 million worth of existing investment by either creating a web-based system that would also reduce the number of Jobcentre staff, or building a new system at a cost to the taxpayer of £96million. Since the UC's blueprint had failed to materialise, the PAC advised the DWP to produce a realistic implementation plan to facilitate their decision.

Nonetheless, the Ministerial Oversight Group, in November 2013, approved a new "digital solution" of adopting a "twin track" approach to replace the existing IT system used in the pathfinders (Parliament UK, 2014). With such approval, the GDS team would be withdrawn to grant full programme ownership to the DWP, thereby hindering the 'agile' approach to system development. As the result, some of the technical positions remain vacant, thereby delaying the programme development even further, particularly the service test that had to be delayed from May 2014 to November 2014. The reported leaked minutes of meetings mentioned that the aggravation faced by UC at that point was further complicated by the 'friction between the DWP and the Cabinet Office' (Timmins, 2016). The team now realised that the February 2013 reset and the 'twin-track' approach had caused the project to slip even further behind schedule, albeit at the same time making it more viable.

In December 2013, the Public Accounts Committee (PAC) held an inquiry into the NAO's September report on UC. Surprisingly, it discovered the shocking news that the £34m worth of IT infrastructure that had been reported as written-off by the NAO had increased to £40m, with an additional £90 million in new software costs (House of Commons Work and Pensions Committee, 2013). PAC highlights that various forms of 'failure, including to 'understand', 'monitor', 'challenge', 'be candid' and 'control', as well as the green-shifting' culture are the factors that caused turmoil within UC. When this emerged, UC continued to

experience issues, as it required the key ‘behaviour change’ that claimants were actively seeking work, as part of their commitment to Jobseeker’s Allowance (House of Commons Hansard, 2013).

The withdrawal of the GDS team delayed UC’s new software development by six months. In February 2014, the UC team proposed a ‘Strategic Online Business Case, SOBC’, outlining a plan to extend the online service to single, unemployed claimants without children (House of Commons Works and Pensions Committee, 2018). Nonetheless, the lack of a blueprint delayed the approval of this proposal until September 2014, when a blueprint was developed and proposed. Meanwhile, the deadline was extended to December 2017. In November 2014, UC was tested in a Job Centre in a small town, with up to 100 fuller-range of claimants. At the same time, the NAO (2014) audit report on UC disclosed that the UC timetable had slipped considerably, with the programme rollout being pushed back to at least January 2018 (see “meeting *any specific timetable from now on is less important than delivering the programme successfully*” (House of Commons Works and Pensions Committee, 2018).

In April 2015, a statement was released confirming that the digital service would be ready by May 2016. In October of that same year, UC once again received major credit from the Committee of Public Accounts, which named the programme a ‘centre for best practice’ due to its ability tremendously to improve their performance and address all of the criticisms. In September 2018, the digital service, which was piloted in several Job Centres across the country, exhibited varied performance, and so it was decided that UC needed to take small steps in its approach. A year later, UC was rolled out in 150 Job Centres and the dateline was extended from 2018/19 until 2022 to facilitate the learning process within the DWP.

Table 6-4: Universal Credit Development Timeline from January 2013 to 2014

(Source: NAO, 2014, Pg. 16)). However, the improvements made by UC earned huge credit from both the Major Project Authority and the Committee of Public Accounts, who claimed,

“meeting any specific timetable from now on is less important than delivering the programme successfully” (House of Commons Works and Pensions Committee, 2018).

In April 2015, a statement was released confirming that the digital service would be ready by May 2016. In October of that same year, UC once again received major credit from the Committee of Public Accounts, which named the programme a ‘centre for best practice’ due to its ability tremendously to improve their performance and address all of the criticisms. In September 2018, the digital service, which was piloted in several Job Centres across the country, exhibited varied performance, and so it was decided that UC needed to take small steps in its approach. A year later, UC was rolled out in 150 Job Centres and the dateline was extended from 2018/19 until 2022 to facilitate the learning process within the DWP.

Table 6-4: Universal Credit Development Timeline from January 2013 to 2014

(Source: NAO, 2014, Pg. 16)

Stage	Planned start	Actual (or revised plan)	Change
Proof of concept	May 2013	June 2013	1 month delay
‘Test the service’	May 2014	November 2014	6 months delay
‘Improve efficiency’	November 2014	Spring/summer 2015	6 months delay
‘Make scalable’	May 2015	November 2015	6 months delay
Full service available	December 2015	May 2016	5 months delay

The development of UC from early 2013 to late 2014 is summarised in Table 6-4.

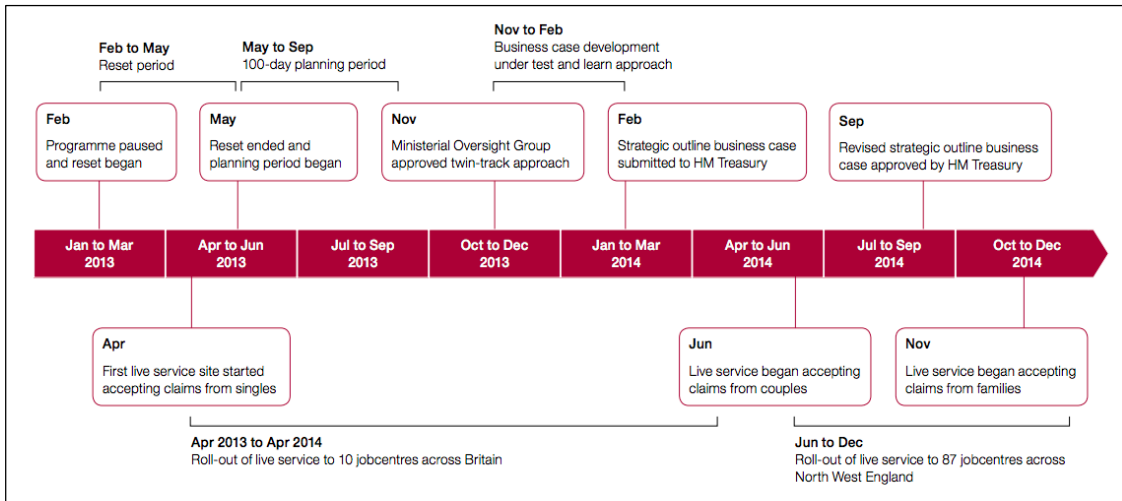


Figure 6-1: Universal Credit’s Development since January 2013

(Source: National Audit Office, 2014, pg. 14)

6.5 Current situation

Currently, it is seven years since the UC programme was initiated, in January 2010, and it missed its full-rollout target twice (i.e. 2013 and 2017), before being set for completion by 2022. The simplified timeline of UC from 2006 to 2016 is depicted in Figure 5-2.

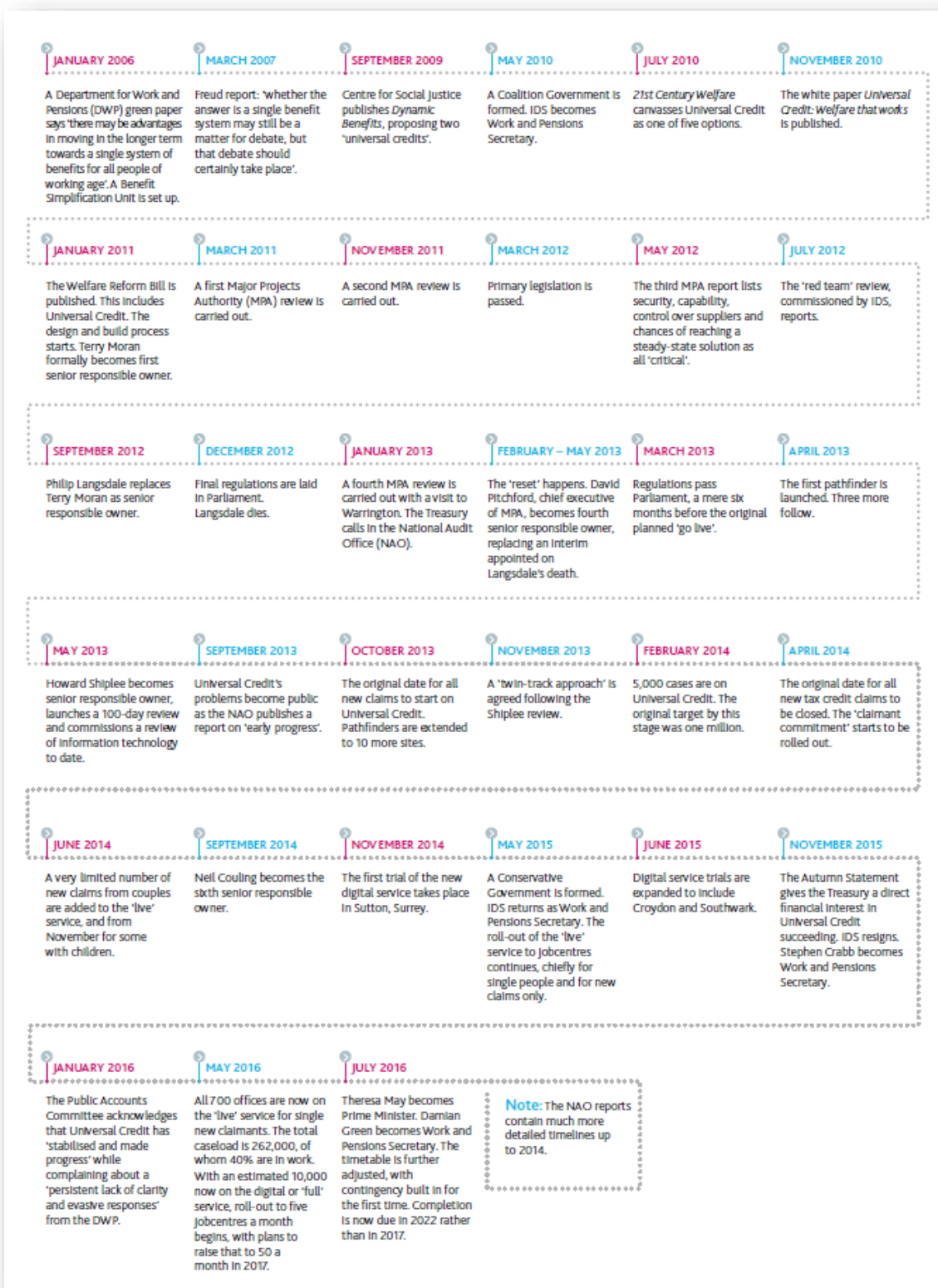


Figure 6-2: Universal Credit: Simplified Timeline

(Source: Timmins, 2016, pg. 74)

6.6 Conclusion

This chapter presents the narratives of Universal Credit, which was the DEST case selected to illustrate the empirical evidence for this research.

The rollout of UC is the biggest welfare reform in the UK's history post the Beveridge welfare state (DWP, 2010). Nonetheless, the institutionalisation of the programme has been impeded by various technical and managerial challenges. Following several rescheduling exercises, the programme finally regained its pace and is expected to be rolled out fully by 2022. The plan, however, is highly vulnerable to shifts in the environment – both internal and external – led by the people, as well as the institutional structures and facilities. This vulnerability demands attention from the stakeholders, especially those involved in the programme's implementation, such as the policy-makers, like the cabinet ministers and the department concern, as well as the grass-root executioners, like the local authorities and the Job Centre staff. The debate about its management and digitally-enabled components dominate the UC discussion throughout space and time (i.e. the media, cabinet meetings, and audit scrutiny since UC inception). The latter, although merely a policy instrument that is designed to facilitate UC implementation, is now being projected as if it were the main policy objective, by appearing to be the fundamental issue complicating this transformation process. This is because it requires alterations within the institutional structures that are well beyond the work processes, and demands significant cultural and behavioural shifts from the actors.

Meanwhile, the complexity of UC's programme management is susceptible to the involvement of various institutional actors across different levels and contexts. A myriad of intricacies emerges as the outcome of the actions taken by these actors. For instance, the implementation of UC development without the availability of the programme's blueprint has led to constant failures to meet the programme's timeline and specifications. The roles of

these actors and structures, together with the processes that mediate the interplay between the two, are detailed in this section, where the researcher performed subsequent analysis of the UC implementation stage, i.e. the institutionalisation process.

Chapter 7

CHAPTER 7 : FINDINGS

7.1 Introduction

This chapter provides the findings and analysis of the UC case. The main intention here is to reveal the lessons from the case on what shapes and underpins the institutionalisation of Digitally-Enabled Service Transformation (DEST)-led practices in public institutions. Such lessons can help us to address the following research questions (RQ):

- **RQ1:** What causes DEST to emerge in public institutions?
- **RQ2:** What shapes DEST-led practices and its context of use?
- **RQ3:** How does the process identified in (2) underpin the institutionalisation of DEST-led practices in public institutions?

To provide a clear explanation, this chapter is structured into seven sections, including this introduction. Section 6.2 illustrates the main results and key lessons regarding the institutionalisation process, as well as depicting the conceptual framework of the DEST institutionalisation process in the public sector. Section 6.3 presents the deinstitutionalisation of the legacy benefits system, while section 6.4 provides a description of the Universal Credit programme. This is followed by section 6.5, that discusses the actors involved in the programme, section 6.7, that outlines the structures involved in the programme, section 6.8, that explains the facilitating actions, section 6.9, that outlines the interventions, and section 6.10, that concludes this chapter by providing the way forward for this research.

7.2 Analysis Strategy

The exploratory study described in section 5.3 led to the identification of Universal Credit as a case for studying the DEST institutionalisation process. The study also performed the

feasible scope of operational concepts to observe and analysed in the UC case study, in order to understand and conceptualise the DEST institutionalisation process in PS (

Table 7-1). Mimicking the ‘reliance on theoretical proposition’ approach proposed by Yin (2018), this is the first strategy that the researcher used to analyse the UC case.

As stated, the concepts are the context of analysis, i.e. the context and four foci of analysis, i.e. actors, process, actions/interactions and structures. The first unit of analysis is the case context, which requires the researcher to pay attention to the case boundary. In this case, the department in charge of the UC programme, i.e. the Department for Works and Pensions, depicts the organisational boundary, while other agencies, government departments and local governments constitute the institutional boundary. Such contexts contain two categories of actor, i.e. institutional and organisational actors, that could be individuals or a group of people with particular roles related to UC implementation. In the meantime, the measurable (i.e. objective) events that are related to each step of DEST institutionalisation are listed under the process and actions/interactions. Since structure is implicit and subjective in nature, the researcher’s inference is required to evaluate their intensity in each level of process, based on the criteria listed under each of them. The researcher’s assumption here is that, only by encoding, enacting, replicating and externalising the appropriate structures will the actors produce desirable actions, i.e. one that may facilitate the institutionalisation process of UC.

Table 7-1: Operational Concepts for DEST institutionalisation

(Own illustration)

Context	Actors	Process	Actions/Interactions	Structure
1. Institutional level	1. Institutional Actors (groups & individual)	1. Making sense of the innovation, i.e. Communicating the information about DEST to all the stakeholders and understanding their perspectives.	1.1 Communication between the policy owner, the implementer and target users	• Actors' knowledge
	2. Organisational level		2. Organisational Actors (groups & individual)	
			2. Empowering the actors so that they can implement DEST	2.1 Mobilising (or authorising) power to the responsible actors to help them governing the actions of other actors in DEST implementation.
			2.2 Mobilising (or allocating) facilities and resources to support the implementation.	
		3. Normalising the practices associated with the DEST to sustain the innovation	3.1 Rewarding desirable actions to encourage the routinisation of expected outcomes.	• Culture • Values • Policies • Procedures • Legislations
			3.2 Sanctioning the undesirable actions to disallowed unwanted practices.	

The second strategy employed in the case analysis is known as the ‘development of case description’, which Yin (2018) suggests as a useful approach when researchers face difficulty in making sense of the rich evidence found in the study. Having said this, the analysis was divided into two spatial events, i.e. the deinstitutionalisation of the legacy benefit system and the institutionalisation of UC. This strategy enabled the researcher to frame the event according to its space and time, solely for the purpose of analysis.

As specified in Chapter 5, the case analysis is presented in a way that preserves the anonymity of the seven individuals involved in the interviews and 40 individuals involved in the focus groups. Therefore, their names are replaced with a description of their role within the UC context.

7.3 Deinstitutionalisation of the Legacy Benefit System

The UK legacy benefit system had been reformed several times since it was first ideated and implemented in the 19th century. Nonetheless, none of the past changes involved the restructuring of the whole benefit system, as is envisaged under UC implementation.

The trigger for the deinstitutionalisation of the UK legacy benefit system was what the (then) Conservative Party Leader (Ian Duncan Smith, IDS) found during his visit to the Easterhouse Housing Estate, Glasgow, in 2002, i.e. the poverty faced by society there due to illiteracy, and addiction. As a politician, this revelation was used as a political weapon to win the election for his party in 2010. Nonetheless, prior to the election, a national thinktank group, known as the ‘Centre for Social Justice’ (CSJ), was formed to research the dark side of social justice in the context of British politics (“www.centreforjustice.org,” 2017).

Five years after its establishment, a report called “Breakthrough Britain” was published, highlighting that the existing welfare system was the main reason why claimants were unable to work and earn sensible pay (CSJ, 2007). The severity of the impact was translated into the projected implications of unemployment and poverty for the UK economy. The findings of the report called a major reform of the existing benefit system. As mentioned earlier, this issue was used as a political weapon and was echoed in the Conservative Party General Election Manifesto’s promise regarding “Fixing Broken Britain”. The UK’s 2010 general election resulted in the formation of a coalition government between the Conservatives Party and the LibDems (The Electoral Commission, 2010). IDS assumed the role of Secretary for the Department of Work and Pensions (DWP) to spearhead the realisation of his party manifesto, i.e. the transformation of the Britain’s welfare structure.

In his next move, IDS tabled a draft bill on welfare reform to the cabinet, which was rejected. The Green Paper entitled *21st Century Welfare* outlines seven principles underpinning the

welfare reform. According to the House of Common's (2011) research paper, these seven principles are:

“(i) Ensure that people can see that the clear rewards from taking all types of work outweigh the risks;

(ii) Further incentivise and encourage households and families to move into work and to increase the amount of work they do, by improving the rewards from work at low earnings, and helping them keep more of their earnings as they work harder;

(iii) Increase fairness between different groups of benefit recipients and between recipients and the taxpayer;

(iv) Continue to support those most in need and reduce the numbers of workless households and children in poverty and ensure that interactions with other systems of support for basic needs are considered;

(v) Promote responsibility and positive behaviour, doing more to reward saving, strengthening the family and, in tandem with improving incentives, reinforcing conditionality;

(vi) Automate processes and maximise self-service, to reduce the scope for fraud, error and overpayments. This could include a responsive and immediate service that saves the taxpayer significant amounts of money and ensures compliance costs for employers, at worst, no worse than under the current system;

(vii) Ensure that the benefits and Tax Credits system is affordable in the short and longer term”.

The paper claims that it is very important for the government to improve the work incentive to enable the practice of these principles. This was followed by the publication of a White

Paper by the DWP, entitled “*Universal Credit: Welfare that Works*” (DWP, 2010), which outlined the plan for UC.

Nonetheless, through the interventions of other senior officials, including the Prime Minister, Deputy Prime Minister and the Chancellor’s chief economic adviser, the UC draft bill was endorsed to be presented before parliament as a white paper entitled “Universal Credit: Welfare that Works”. The paper announces the merger of all six means-tested in-work and out-of-work benefits (i.e. Child Tax Credit, Housing Benefit, income-related Employment and Support Allowance, income-related Jobseeker’s Allowance, Income Support, and Working Tax Credit) into a single, monthly payment, rather than being paid on a weekly or fortnightly basis.

7.4 Changes within the new system

Besides the benefits’ merger and single payment frequency, UC also entails a few important changes. The new delivery model for the benefits system is depicted in Figure 7-1:

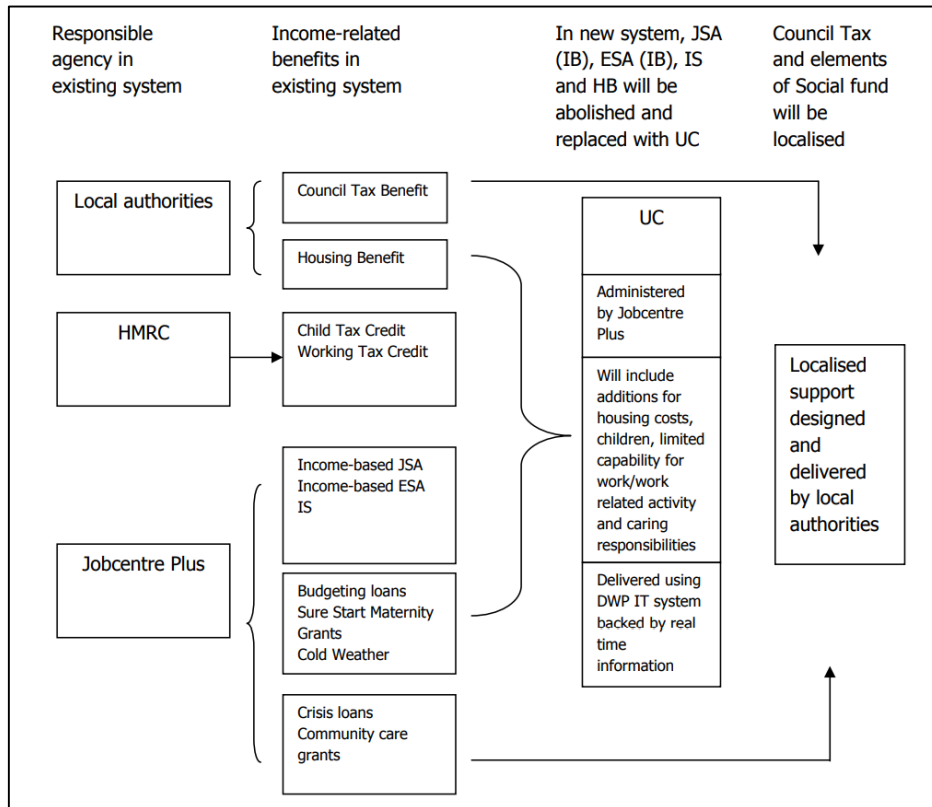


Figure 7-1: Changes to the delivery model of relevant income-related financial support following the introduction of UC

(Source: Centre for Economic and Social Inclusion, 2012)

First, the reforms will ensure that all work (including jobs entailing very few hours) pay more than idleness, thereby opposing the negative reinforcement of the existing system, which makes a job that offers less than 16 hours of work per week unviable. Second, to urge benefit receivers to seek work, UC introduces the ‘claimant commitment’, which requires them to spend up to 35 hours a week looking for work. A failure to comply with this condition could result in a sanction of up to three years’ disqualification from benefit, rather than the six months under the existing system. Third, since it makes all jobs pay, there is an expectation from the taxpayers and state that the benefit receivers will undertake more work (i.e. more hours, additional jobs or better paid job). It is hoped that by taking more jobs, the amount of benefits bill can be reduced and at the same time, the receivers will eventually be able to exit

the benefit system. Failure of the receiver to get job could result in benefit sanction. Figure 7-2 depicts the proposed sanctions under UC.

Conditionality	Failure	Sanction		
Low Jobseeker's Allowance and Employment and Support Allowance Work Related Activity Group	Includes failure to: <ul style="list-style-type: none"> Attend an appointment Carry out a jobseekers direction Attend employment-related programme Attend a Work Focused Interview (Employment and Support Allowance) Carry out work related activity (Employment and Support Allowance) 	100 per cent Jobseeker's Allowance/Employment and Support Allowance open ended until re-engagement then fixed minimum period (1, 2 then 4 weeks) Advisers will retain the ability not to impose a sanction for first and subsequent failures where good cause applies		
Medium Jobseeker's Allowance only	Failure to: <ul style="list-style-type: none"> Actively seek work* Be available for work* 	1st failure: 100 per cent Jobseeker's Allowance fixed for 4 weeks	2nd failure: 100 per cent Jobseeker's Allowance fixed for 3 months	
High Jobseeker's Allowance only	Failure to: <ul style="list-style-type: none"> Apply for a job Accept job offer Take part in Mandatory Work Activity 	1st failure: 100 per cent Jobseeker's Allowance fixed for 3 months	2nd failure: 100 per cent Jobseeker's Allowance fixed for 6 months	3rd failure: 100 per cent Jobseeker's Allowance fixed for 3 years
For benefit recipients only required to attend Work Focused Interviews				
Income Support and Employment and Support Allowance lone parents with a child aged over one but below the age of five	Failure to attend Work Focused Interview	1st failure – 20 per cent (of the over-18 lone parent personal allowance) open-ended until re-engagement 2nd and subsequent failures – additional 20 per cent (capped at 40 per cent total for any subsequent failures) until re-engagement		
* will remain a condition of entitlement under Jobseeker's Allowance. Sanctions will follow new claim (subject to expiry period), and any loss of benefit at the point of disentitlement will count towards the fixed sanction period.				

Figure 7-2: The Proposed sanctions structure under Universal Credit

(Source: "Universal Credit: Welfare that Works", White Paper, DWP, 2010, pg. 34)

Figure 7-3 depicts the new journey when making a claim. With the barriers to work removed, the claimant's journey will be affected as reported in Figure 7-4.

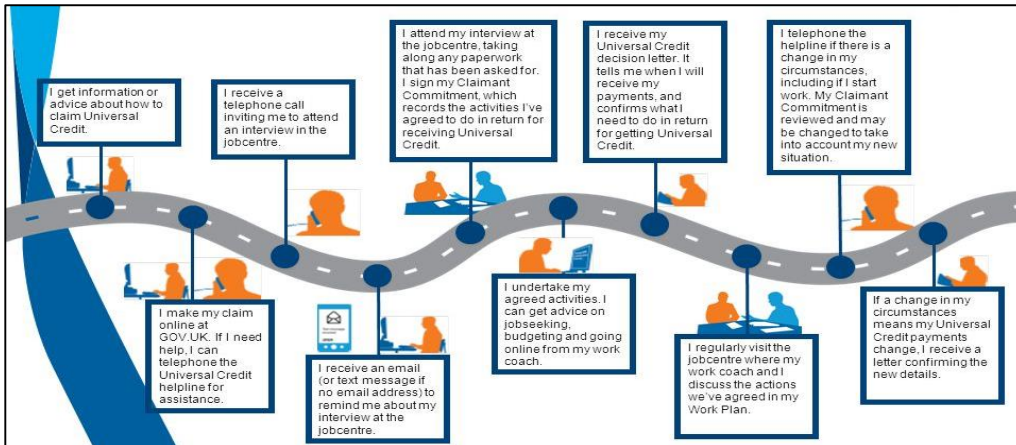


Figure 7-3: UC Claimant Journey
(Source: Gov.UK, 2015)

Claimant journey	Aims	Changes
New claims	Simplify benefits and reduce confusion Reduce the need to make new claims when circumstances change	Consolidates six working-age benefits into one Aims for 80 per cent of claims made online
Claimant culture	Encourage responsibility for managing household budgets Reduce welfare dependency	Makes a single monthly payment directly to claimant (rather than, for example, the landlord)
Claimant obligations	Increase job search skills and preparation for work	Increases job search through 'claimant commitment' Extends work search conditions to claimants in work
Work support	Tie support more clearly to conditions and incentives	Clarifies how sanction regime relates to conditions Links to record of search on new Universal Jobmatch system
Incentives	Improve and make clearer the incentives to work	Limits benefits withdrawal rate to 65 per cent of increase in income Increases some disregards Clarifies 'better off' calculations
Changes in earnings	Remove burden of closing and reopening claims when moving into work or reporting changes in earned income	Updates earnings automatically using real time information (RTI) Claimants update self-employed income themselves online
Other changes in circumstances	Simplify and improve reporting of changes in circumstances	Claimants report changes in circumstances online Claimants report childcare costs online

Figure 7-4: Changes to the Claimant's Journey
(Source: National Audit Office, 2013, pg. 14)

In working out the UC payment, the work coach at the Job Centre will calculate the ‘Minimum Income Floor’ (MIF) for the benefit receiver, where the UC payment will depend on two scenarios: if the earnings are calculated as being equal to the MIF (even if the actual earnings fall below this line), the claimant will receive the usual payment rate but, if the earnings exceed the MIF, the claimant will receive less UC. This MIF is not applicable to those who are in the first 12 months after starting a business.

As a programme that involves a massive transformation in scale, the white paper also states that UC will be ‘digitally enabled’ to receive real-time data shared by HMRC (see Figure 7-5

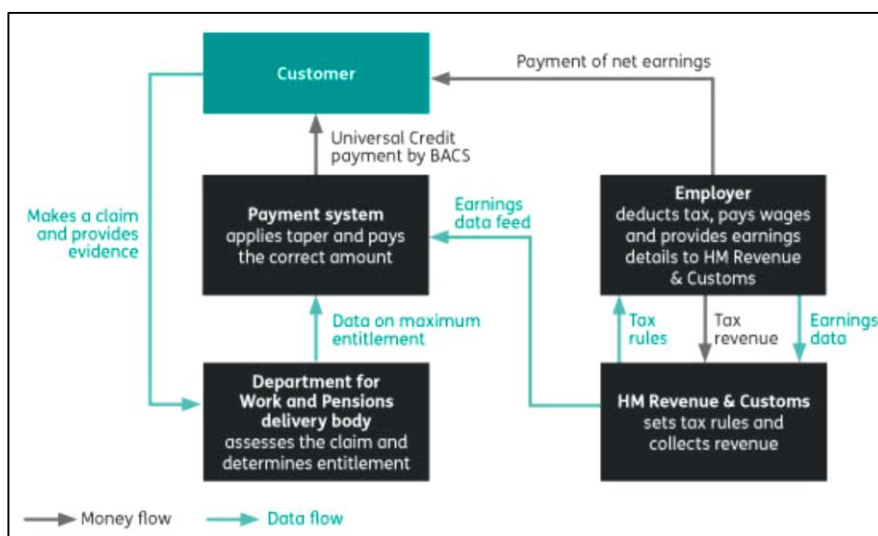


Figure 7-5: A real-time payment system for UC

(Source: “Universal Credit: Welfare that Works”, White Paper, DWP, 2010, pg. 35)

In this context, HMRC will share the Pay As You Earn (PAYE) data which have been reported by employers with DWP four times daily to enable Real Time Information (RTI) processing. Hence, the calculation of the UC payment depends on such data, and any queries regarding the payment will be redirected to the employer, in case the employer does not use the RTI Bankers' Automated Clearing Services (BACS) to pay their employees, which is a highly recommended mode of payment by HMRC and the DWP (AccountingWeb, 2015).

The system was envisaged as a simple, easy to use tool, with generous advantages, especially in facilitating feasible fraud and error prevention. According to the White Paper, the UC system would be ready to process new benefit claimants' applications by October 2013, before managing the transfer of the existing claimants by October 2017 (Department for Work & Pensions, 2010). The timeline was agreed by both the DWP and its suppliers.

While the white paper was being tabled, the government demanded some sort of devolution from the central government departments to the local authorities, whereby the DWP 'agreed' to hand over 'Council Tax Benefit' administration to the local government along with a £500 million cut. Apparently, it was then realised that the handover not only complicated the calculation for 'better off in work', but also undermined the idea of UC's single benefit system. Despite these potential threats, the white paper was approved as a Welfare Reform Bill in January 2011, followed by an Act in March 2012. Figure 7-6 demonstrates this process, which some refer to as a 'remarkably short process' compared to other policy (Timmins, 2016b).

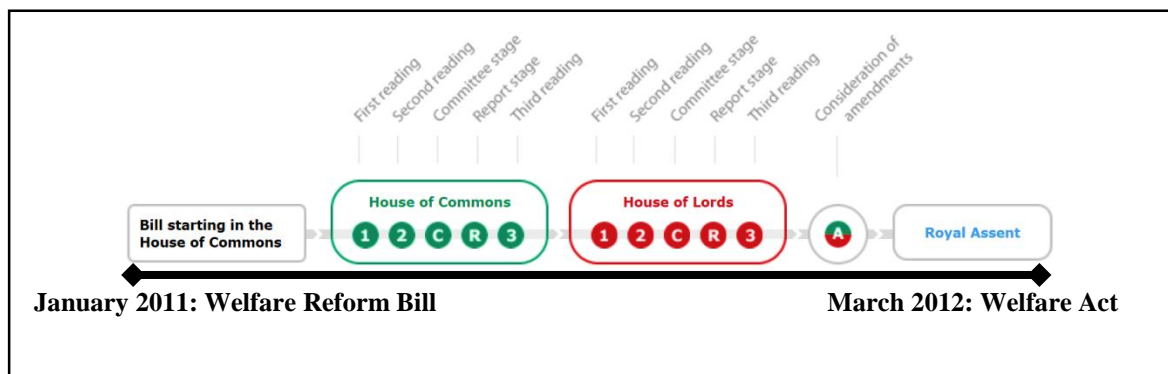


Figure 7-6: The process of UC Law-making

(Adapted from Parliament.UK)

The secondary legislation,⁹ that contains the details of UC's operations, was passed in March 2013, when UC implementation was well under way. The timeline from UC's ideation to development is summarised in Table 7-2.

⁹ Secondary legislation is the subordinate law created by the executive branch within the legislative boundaries. Ministers, public bodies or the Crown are empowered to do this; hence it is also known as delegated legislation.

Table 7-2: UC's timeline from ideation to development

(Own illustration)

Year	Key Events
2002	Easterhouse Epiphany: IDS declared that the Conservative Party had to become 'the natural party of those who want to make a better life for themselves and their children' and one that 'doesn't just drive past Easterhouse on the motorway'.
2003	Implementation of WTC
2004	Establishment of the Centre for Social Justice, which produced a string of reports, notably Breakdown Britain and Breakthrough Britain.
2005	The DWP published a "Five Year Strategy", committed to the simplification of the benefits system.
2005	The NAO published a report on the benefit system's complexity, which impeded the DWP's performance.
2006	The DWP published a Green Paper entitled 'Long-term Benefits Reform', acknowledging such complexities.
2007	IDS formed an economic working group and produced a report entitled "Breakdown Britain" to illustrate unemployment's impact on the economy, calling for welfare system reform (to adopt 'payment by results' approaches).
2008	The proposal was studied and questions were raised regarding several aspects.
2009	The economic group produces the "Dynamic Benefit" paper (a blueprint for welfare reform).
2009	At the Conservative Party conference, IDS was announced as "responsible for bringing together all our work to help mend the broken society" if the party won the general election.
2009	IDS met Theresa May (Conservative W&P Spokesperson), who was unconvinced by the idea. David Freud, an ex-banker and former financial journalist, who was brought into the government to review the welfare programme, who was also present at the meeting, was asked to review the blueprint and turn it into 'practical politics'.
2010	Freud concluded that the plan will take around eight years to reach fruition.
2010	Freud met Peter Seymour (who developed the Paye As You Earn (PAYE) System for HMRC). He was informed that the scrapped PAYE could be a prototype for the real-time information, RTI system, thus bringing the new welfare system several years closer to realisation.
	*NOTE: RTI, which was to gather PAYE information from employers monthly, was important because, if successful, it would facilitate a fundamental change of approach. Awards would no longer have to be given for six- or 12-month periods, but could be adjusted monthly, in close to real time, and the RTI would pick up multiple jobs, reducing the chance of fraud while allowing benefit payments (UC) to be adjusted as income rose or fell or circumstances changed. It was the key to unlocking UC, and promised to tackle both the overpayment and underpayment problems.

Its main purpose is to supplement, administer, support and enforce the primary legislation (i.e. the Act). Thus, the experts dedicated to this task will debate the technical matters concerning the case to make the law more precise and efficient. This process is less complicated than creating the primary legislation and passing it is less time-consuming (LawTeacher, 2013).

2010	Freud met David Gauke (Shadow Minister for tax policy), who promised to implement PAYE if his party got into government.
2010	IDS met George Osborne (Shadow Chancellor) about the UC idea and they disagreed.
2010	Stephen Brian (management consultant cum member of the economic group, cum author of “Dynamic Benefits”, cum adviser to IDS, cum deputy senior responsible owner for the UC project) presented a revised Dynamic Benefits plan to the DWP policy-makers and analysts and was met with a negative response.
2010	The UK General Election led to a hung Parliament, with a coalition government between the Conservative Party and the LibDems. IDS was appointed Secretary of the DWP.
2010	The White Paper, “Universal Credit: Welfare that Works”, was presented to Parliament.
2011	The Welfare Reform Bill was tabled.
2012	The Bill was passed as the Welfare Act
2013	Completion of the UC’s Secondary Legislation

7.5 The Actors Involved in UC Programme Implementation

UC involves hybrid internal and external groups and individual actors with a myriad of roles and responsibilities. Internally, the actors that constitute the UC context are DWP personnel. Figure 7-7 depicts the leadership structure of the DWP. Although UC is owned by the DWP, it is not a single, prominent actor in the UC institutional context.

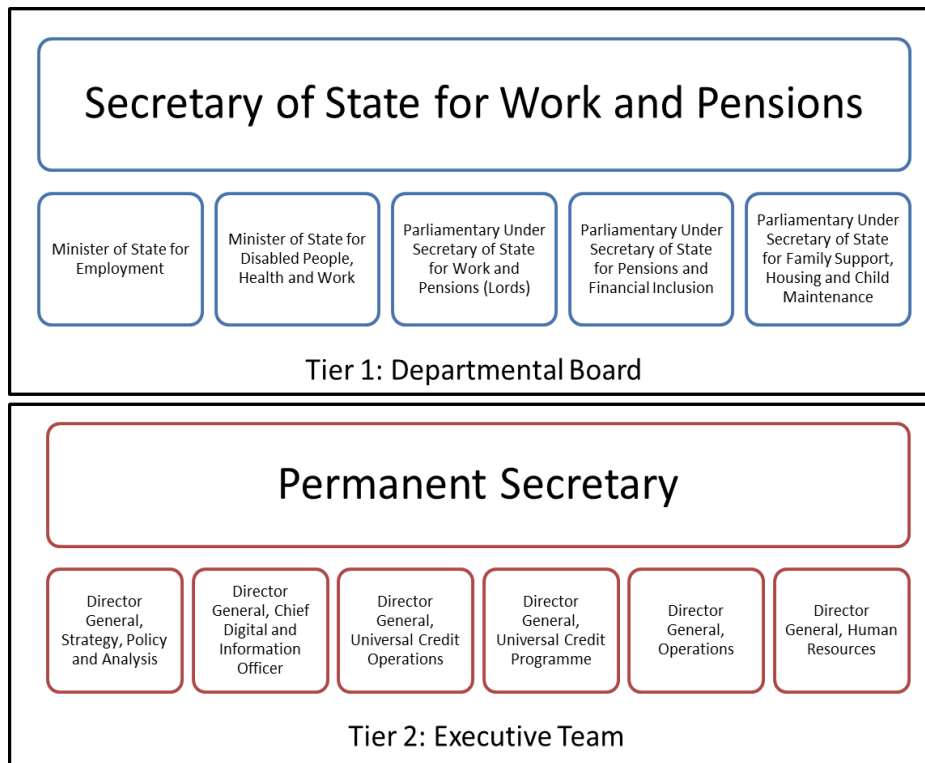


Figure 7-7: DWP Leadership Structure

(Own illustration)

To start with, the six benefits that were merged under a single UC payment were previously the responsibility of other authorities. For instance, the means-tested benefits, such as Housing and Council Tax benefits, were administered by the local government, whereas Tax Credit (i.e. Child Tax and Working Tax Credit) were the responsibility of HMRC. Moreover, HMRC plays an important part in enabling and integrating the RTI PAYE system to support the UC system.

Since the benefits also involved the delivery of services by local councils, the Local Government Association (LGA), through its strategic channel known as the Local Government Delivery Councils (LGDC), actively participates in the programme delivery and improvement. UC programme invites scrutiny from the political parties, as well as Parliament, especially the Public Account Committee in the House of Commons.

In the meantime, UC implementation also triggered interventions by other organisations, such as the Audit Office, Major Project Authority and Government Digital Service, from the public sector and many non-governmental organisations (NGOs), such as the Citizens Advice, the Social Market Foundation, the Chartered Institute of Housing (CIH), the Low Incomes Tax Reform Group, the Child Poverty Action Group, and the National Association of Welfare Rights. The list of actors involved with UC and their roles are provided in Appendix X.

Although GDS' contribution during the 'reset time' was criticised for being unable to solve the UC's IT issues, the focus groups and interviewees agree that the complexity of the UC structures was a factors underpinning such failure. One of the interviewees that once lead the UC development team was quoted saying:

"...in terms of what the GDS is trying to do (that is to) take control and make sure there is a leadership within the different departments and so you get consistency - I guess it is so huge and, with the different partners, you are not going to please everybody".

Noticing the richness of UC's institutional field, it was agreed that strong leadership was a prerequisite for institutionalising UC. Leaders at all levels were needed to mitigate and steer the involvement of these actors in a common, agreed direction that could facilitate UC's institutionalisation. The local government 'watchdog' who participated in the focus group commented:

"The importance of leadership should not be underestimated. An effective leader can actually make a huge difference –not just on how things should be delivered, but also on how well it is delivered".

7.6 The Structures Involved in the UC Programme Implementation

During the focus group discussions, it was found that the participants held different opinions regarding defining ‘transformation’ and its progress. The majority of the focus group participants agreed that UC is making good progress and simply requires a little improvement to allow a better understanding of what has been achieved so far (in terms of the existing benefit system) and how technology can be better utilised to facilitate efficient and effective benefit service delivery. In other words, they argue that technology is not always the answer to the problems associated with the benefit system, but one of the tools available to help the government to solve the issues. They stated that the UC is similar to other government DEST programmes, where a great deal of the discussions and focus at the outset was allocated to the ‘digitally-enabled’ aspect, such as the single online account for benefit recipients, rather than the complex policy problem. The central government officer who was interviewed mentioned:

“...the obsession early on with this digital interactive single account has caused DWP officials considerable annoyance because again it completely misses the point”.

While commenting on the structural complexities of UC, the interviewee whom are from the cabinet office asserted:

“Universal Credit is a massive shift in government policy towards benefits and requires significant amounts of new legislation.

Explaining the complexity of the implications following the transformation, he added:

“UC take about six existing benefits and bring them together into one payment to the recipient, all of which are administered under different processes or different administrative bodies or stakeholders. They are based on piles of complex legislation going back decades,

with primary legislation, amendments, secondary legislation all stacked up. The policy objectives for each of those benefits are not necessarily the same or consistent.”

Quoting the housing benefit as an example, he explained that that the policy objective is to make sure those landlords of people receiving housing benefit get paid their rent, so the money for housing benefit is passed from central government through local authorities to landlords, not benefit recipients. This is contradicting with the whole principle of Universal Credit – i.e. to put all the money into a single account of the benefit recipient and to make them manage it. As the result, the interest of stakeholders like the landlords and the local authorities are at crucial stake.

The Cabinet Office official also affirmed that the the priority task of the policy officials in DWP is to sort out the policy objectives, disentangling the existing (policies) from the current mess and matching them with the new policy objective, as determined by the government, followed by creating a new coherent set.

A doubt was raised by saying:

“Now, I'm not sure how well DWP was setting about doing that...They certainly didn't consult the local authorities very early on...so I suspect that contributed to the mess as well”.

The top-down approach used to implement UC was seen as another factor that contributed to the already complex institutional structure. It was said that such an approach has hindered UC's acceptance. While discussing this in the focus group, one of the participants from the local government mentioned that:

“... people are feeling things done to them (not owning the things). People don't like the idea coming from the outside (upper-level of government) and were suspicious of the DWP Secretary. He was seen as a person who wiped away all the benefits through UC, in a

situation where the welfare budget has already been constrained – and we have to deal with the mess”.

Criticising this top-down approach, the local government representative that was interviewed stated:

“People have been involved and engaged, and have a stake and a say in the changes rather than having things done to them. For change to be effective, you have to work with people, giving them importance and opportunity to have a say. By doing this, they make UC look like a political tools rather than a socio-economic improvement agenda”.

Meanwhile, the absence of an objective structure to facilitate UC implementation created chaos and further complicated the structure. It was discovered that, throughout its inception in 2010 to 2016, UC relied on the White Paper for its directions. Although the paper is useful in communicating about UC, it contains very few details about the technicalities of its operation. Hence, the DWP’s failure to produce a guide (or blueprint) led to the creation of various solutions that conflicted with the transformation’s objectives. For instance, the technical team had overlooked the need to create coding to enable the automation of fraud prevention in the new system. Stressing the importance of communication in the implementation programme, one of the senior leaders who participated in the interview said:

“I think it is really important for us to understand and have good insights and understand people’s expectations. By having such understanding, it will help our service to be better and richer”.

In the focus group, everyone agreed that understanding the programme as well as the structures that were developed to facilitate its implementation were fundamental in promoting the desired actions. The participant who is a public sector consultant mentioned:

“...we’ve got many different stakeholders, but it is the understandings of these stakeholders how we can best support the implementation”.

All of the focus group participants agreed that this complexity would impede UC’s implementation, but the political motive increased the complexity further. The participant from the local government said:

“Yes, the complexity and also the politics. We have politicians who want to be re-elected, and therefore their own personal issues will come into play. It’s quite interesting in this place because all of the members are quite independent, so we have a lot of politics”.

In a recent development regarding the UC’s accelerated rollout in July and October 2017, Foley (2017) from Citizens Advice reported that UC still faced with many issues despite receiving its millionth claim, and issues were probably going to form systemic flaws that would defeat UC’s objectives. She was quoted saying:

“...there are still lots of teething problems and design flaws which are causing people huge difficulties. From reduced work incentives to issues such as claimants getting into debt while they wait at least 6 weeks for their first Universal Credit payment, a rapidly growing number of people are turning to Citizens Advice for help with this new benefit, 30,000 in the last year alone.”.

7.7 The Significance of UC Programme

According to the focus group participants, although it is common for any organisation to experience change, the scale and ambition of the UC programme has created many “implementation hiccups that made it ugly and unachievable”. One of the senior government officers who participated in the interview mentioned that such hiccups were partly caused by the actors’ inability to understand the meaning of "transformation" in this context and

whether it was distinguishable from other types of change. Arguing that there exists a fundamental difference between transformation and other types of change, he said:

“All services are founded on the principle that, by doing A, B and C, we will achieve X, Y and Z. Most improvement approaches like lean management, focuses on improving A and/or B and/or C in order to get better X, Y and Z. My argument is that the approach of transformational change is to say that we are now going to do D, E and F in order to achieve significantly improved X, Y and Z. In practice, you would probably also assess the value of continuing with X, Y and Z, while considering bringing in U, V and W. I think the people who know the welfare system in detail would have been sceptical about UC’s ambition, and that’s a sensible reaction”.

It was found from the evidence that the process of informing such meaning and other information regarding the benefit transformation programme has been alarmingly incongruent and lacking since the UC’s programme’s inception. Undeniably, such effort existed in the UC’s introduction stage but, nonetheless, this decreased dramatically as the implementation process went on. This phenomenon had smoke-screened the UC’s policy objectives and its desired outcome benefits. Due to the widened misunderstanding gap, people involved with the implementation are becoming more sceptical about the program and performing their tasks hesitantly. Part of this hesitation is affiliated to the management and leadership approach, while part is associated with the system development, including the capability of the team that is building the system and its unrealistic timeline. It was raised in the focus group that an understanding on the transformation objective at the initial stage of any transformation programme is vital. This should be followed by other management instruments such as regular sessions of meetings, standard form of governance and documenting of instructions manuals, in order to keep every party on the same page.

In line with this, the research participants also pointed that it is important to make the policy-makers understand the reality of the department (i.e. the DWP) prior to agreeing to implement the programme. They suggest that this task should be the responsibility of the senior officers at then DWP, i.e. the Permanent Secretary (PS). Blaming the PS, it was said that her unwillingness to advise the minister about the DWP's capability and readiness to implement UC when she was first approached "*has got a lot to do with the way UC was planned and designed*". Instead of advising, she agreed to run the programme without prior consultation with the DWP team to ensure that they had sufficient capacity and facilities to proceed. Commenting on this, the interviewee from the UC team mentioned:

"...the Work Secretary should have involved the delivery people as well, not just the senior leaders before making any commitment to the higher authority. It shows that she didn't really understand the process of implementing transformation".

Meanwhile, the central government official that was interviewed added:

"Some people at the senior and middle management level just don't want to engage with some frontline staff to share ideas that acts as a blockage and barrier – how do you make people accountable?...and, if they are not sensible, or not practical, be clear upfront about that at the early stage".

Commenting on the same issue, the local authority representative in the focus group agreed that making people understand the transformation objectives is highly important as it could avoid misinterpretations that could produce undesirable actions, sabotaging the UC implementation. Such task should be performed by the leadership team.

Moreover, the focus group participants highlighted that it is important to let the voices of those who will be involved in the transformation tasks be heard, to ensure that they gain the 'right' understanding. The deterrent repercussion of having an unclear understanding of the

program is the treatment given towards the transformation program, where UC was treated as a change in the policy instruments rather than the policy objective, which demises the cultural and behavioural shifts among the actors involved. This was admitted by the focus group participants, in the following statement:

“we perceived UC as a new tool to run the benefit system. But now we do see that it is beyond the use of technology in the work process - it actually changes the culture”.

In 2010, following the endorsement of the white paper (i.e. “Universal Credit: Welfare that Works”), a senior, experienced DWP official was appointed Director General of the DWP. He was then given the task of leading the UC Programme. In the following year, the retirement of the Department’s Permanent Secretary (DPS) led to the appointment of a new DPS who had previously worked at the DWP for many years. The new DPS, who is experienced in the department’s operations, drafted a restructuring plan before initiating it in 2012. Such a move resulted in the combination of jobs and duplication of position at the senior level. For instance, the Director General also acts as the Department’s Chief Operating Officer, with both positions being irresponsible for the UC (Timmins, 2016). This has increased the ignorance regarding what is happening regarding UC, which sparked turmoil.

Regarding the system development, the findings from the focus groups and audit reports (NAO, 2013, 2014; PAC, 2016) indicate that the initial rollout plan was obviously unattainable, because there are numerous benefits and legislations that have to be amended or created to support the implementation. One participant commented:

“I think the people who know the welfare system in detail would have been sceptical about the UC’s ambition, and that’s a sensible reaction”.

Meanwhile, the involvement of the GDS team after the reset decision was criticised as ill-advised because of their limited understanding of the whole benefit system. A focus group participant who in the UC team said:

“to get something that’s actually going to work, you have to be efficient, and effective, and to have an understanding of the complexity, you need a mixture of experienced people across roles and levels in the team, so the essence is communication, you should know what impact has, how you’re going to measure and benchmark it...you need to be informed about what it feels like and what should be done”.

In addition to this issue, the interviews and focus group findings suggest that the frequent change of leadership of UC has delayed the progress of its implementation (see Figure 7-8 for UC’s leadership changes). Once a position is replaced, the new appointee requires ‘some time’ to understand the UC situation before starting to work on it. In the race against time, some decisions were made based on a limited understanding of the situation.

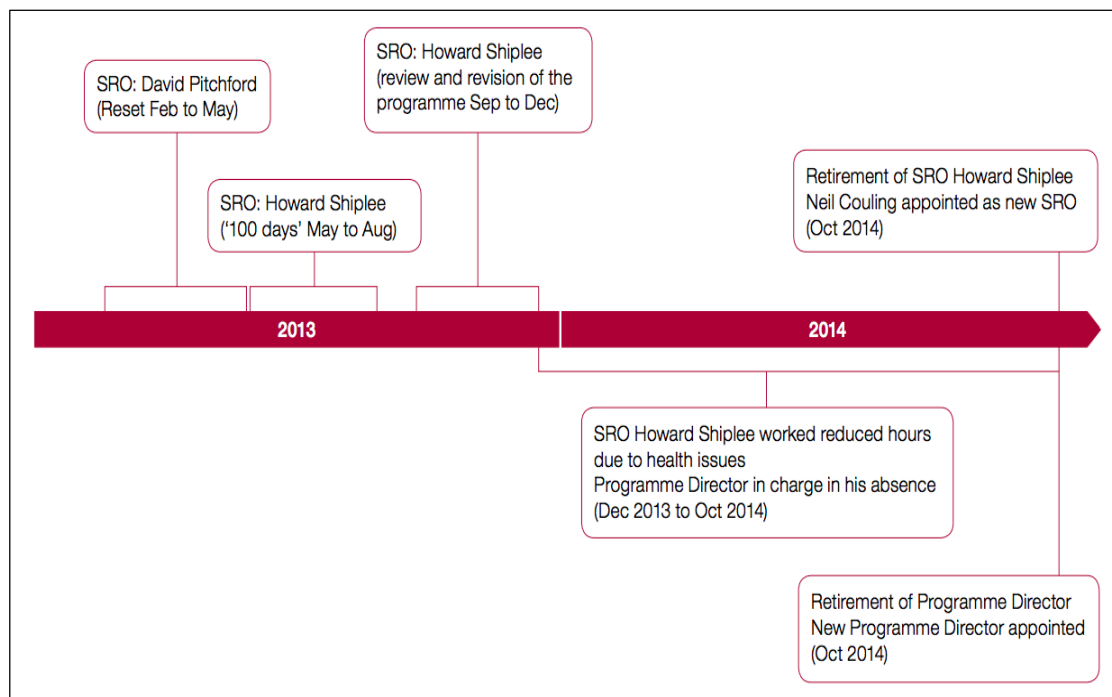


Figure 7-8: Leadership of UC from 2013-2014

(Source: NAO, 2014, Pg. 44)

In early 2016, the PAC remarked that the DWP remained less transparent in its reporting, thus concealing the understanding on the real situation of the UC programme (Public Account Committee, 2016). The report added that this has hindered the offering of assistance and proper interventions in the case. The “green-shift” culture is also highlighted as the fundamental factor underpinning UC’s failure. All of the research participants agreed that the distorted messages contributed to the ineffective communication, which is one of the biggest contributors to UC’s derailment. The senior government officer whom the researcher interviewed commented:

“You should be getting across the right messages - that is extremely important if you want to implement changes effectively”.

During the writing of this thesis, the researcher discovered that the DWP had taken a further step to improve the communication regarding UC news by taking the following actions:

- i. Publishing a bulletin entitled the “Universal Credit Local Authority Bulletin”. Targeted at local authority staff, the bulletin aimed to provide them with updates on UC developments (Department for Work and Pensions, 2017).
- ii. Agreeing to fund notification automation software at LA level in order to reduce the burden of clerical action required to notify claimants about changes, termination or awards of UC. The method also enables the fast notification of the staff.
- iii. Publishing the “Universal Credit Local Authority live and full service support packs”, circulated to inform LA staff about UC service improvements, budget announcements, policy/process changes and user feedback.
- iv. Establishing the “DWP-LA Welfare Steering Group” to consider and provide insights from the LA perspective on all UC-related matters that will support UC development and implementation.

7.8 Empowering Actions through Resources

The financial facility is the primary concern of the UC Program. The total financial implications for the set-up and development of UCI from the 2010/11 to 2014/15 Spending Review Period as reported by NAO (2013, pg. 17) is shown in Figure 6-9:

Investment costs (£m)	2010-11 to 2012-13 Three-year actual	2010-11 to 2014-15 Five-year budget May 2011 plan	2010-11 to 2014-15 Five-year budget December 2012 plan
IT investment costs	303	396	637
Migration costs	–	435	175
Other investment costs	112	683	615
Total investment costs	415	1,514	1,427

Figure 7-9: Programme investment costs

(Source: NAO, 2013, pg. 18)

The NAO reported that, during the early review period, in 2013, the programme's total spending was £425m, i.e. £6m below the allocated budget. However, a sharp increase in the budget for IT investment (i.e. £637m) was predicted in December 2012 for a five year period up to 2014/15, with a total investment of £1,427. In the same report, it was revealed that £34m that had been spent on UC's IT systems had been written-off, as these had failed to work as desired. Nonetheless, this was denied by the Work and Pensions Secretary, who reiterated that UC is 'on budget' (Dominiczak, 2013). In the follow-up report issued a year later, the NAO disclosed that HM Treasury has approved a series of funding for DWP, entailing their requests for certain activities. It was revealed that, in the period from December 2013 to October 2014 alone, the DWP had spent £193 million on UC, i.e. £8m on

digital service development and less than £34m on payments to external suppliers to enhance the live service systems.

However, UC suffered further cuts in the 2016 budget announcement, since being its victim in 2010, with four budget cuts between 2015 and 2016 alone (Timmins, 2016). Following this announcement, the DWP PS resigned from his post over the question of whether the cuts to the personal independence payments (PIP), which is paid to people with disabilities, were too drastic and “only defensible in narrow terms of deficit reduction, but not in the way they were placed in a budget that benefits higher earning taxpayers” (The Guardian, 2016).

Later, a new PS was appointed for two months before being replaced by another PS post the EU Referendum. The current PS claims that the challenge within UC has shifted course, from the technicalities of the IT system to the policy changes, which are causing a further slowdown in UC implementation. One of the changes in the benefit-related policy is the raised age bar for housing support benefit claimants, from 18 to 21 years of age. Meanwhile, the UC continues with the full service rollout to five Job Centres monthly until June 2017, then 30 and 55 Job Centres monthly until September 2018, while the migration of the existing benefit claims begins in 2019 and is expected to be completed by March 2022 (PAC, 2016) (see Table 7-3).

Table 7-3: Universal Credit Milestones in November 2016

(Source: “Universal Credit and fraud and error: progress review”, Parliament, UK (2016))

Situation at the time of the C&AG's November 2014 report ¹³	Department's memorandum and oral evidence, December 2015 ¹⁴		Ministerial statement, 20 July 2016 ¹⁵	
Milestones	Milestones	Change (compared to C&AG's November 2014 report)	Milestones	Change (compared to memorandum December 2015)
Complete nationwide roll-out of live service by April 2016	Complete nationwide roll-out of live service by April 2016	No change	Milestone completed	
Begin nationwide roll-out of digital service in May 2016	Begin nationwide roll-out of digital service in May 2016	No change	Milestone completed	
Complete nationwide roll-out of digital service in December 2017	Complete nationwide roll-out of digital service in June 2018	6 month delay	Complete nationwide roll-out of digital service in September 2018	A further 3 month delay
Begin managed migration of Jobseeker's Allowance, Housing Benefit and Income Support claimants in January 2018	Begin managed migration of Jobseeker's Allowance, Housing Benefit and Income Support claimants 'in 2018'	6 month delay ¹⁶	(Built in contingency between October 2018 and July 2019) Begin managed migration of existing benefit claims in July 2019	A further 13 month delay
Complete managed migration of Jobseeker's Allowance, Housing Benefit and Income Support claimants in December 2019, with no fixed plans for the remaining 555,000 tax credits and employment and support allowance claimants	The 'bulk' of migration will be complete by 2019, but plans also bring an additional 800,000 tax credits and employment and support allowance claimants by 2020-21.	Unclear how this has changed. 'Bulk' is not defined, and it is not clear whether migration times have changed for different benefit types.	The managed migration of existing benefit claims will start in July 2019 and complete in March 2022.	A further 12 month delay ¹⁷

While writing this thesis, it was found that the DWP has improvised a number of facilities to enable the smooth running of UC implementation (see Department for Work and Pensions, 2017). These are:

- i. Automated notification software to inform claimants and LA staff about UC payments.
- ii. Universal Support Grant Funding, where the LAs are provided with a certain amount of fund to finance the Assisted Digital Support (ADS) and Personal Budgeting Support (PBS) programme.
- iii. UC New Burdens funding, where the LAs are provided with financial resources to cover the payment for UC-related administrative duties performed by the LA staff.

- iv. A revised amount of funding for Universal Support and UC New Burdens funding, which is allocated to LAs to help them cope with the housing funding pressure.
- v. The implementation of “The Trusted Partner scheme” following its successful pilot study. This scheme allows Social Rented Sector (SRS) landlords to engage with their UC claimant tenants and helps them to manage housing payments through the available support.
- vi. The implementation of “The Landlord Portal”, whereby the SRS landlords are able to submit information directly to the UC system, thereby enabling the timely and accurate payment of housing costs to UC claimants.
- vii. The granting of ‘Trusted Partner status’ to the landlords in (f), which enables them to make recommendations regarding whether an Alternative Payment Arrangement (APA) should be put in place.
- viii. The establishment of a “DWP-LA Welfare Steering Group” that provides a channel for LA staff to send direct-continuous feedback to the DWP regarding UC’s development and implementation.

7.9 Normalising Practices through Interventions

In the first three years of UC implementation (2011-2014), the research discovered various heterogeneous and unstandardised practices existing within the organisations.

For instance, although it was stated in the White Paper that the ‘Agile Approach’ would be used to develop the UC system, the actual approach used was the waterfall approach. It was noted that the government viewed the agile approach as the antidote to the waterfall approach, which many had reported as being the main factor underpinning the failure of many DEST projects in the UK’s public sector, such as the NPfIT and BBC-DMI (Omar et al., 2015). Nonetheless, the UC’s situation is the major impediment to this approach. It was

reported that the agile approach requires “*rapid prototyping, continuous improvement and tangible products*” (Tucci, 2014). This is unattainable within the context of UC because the £1.12 billion UC contract has been awarded to major suppliers with ‘fixed features’ since the beginning of the programme, which conflicts with the concept of the agile approach. A UC team member who was also the IT specialist who participated in the focus group specified that, by fixing the complex project details of what is expected to be delivered by the end of the contract period, the DWP had increased the chance of the project running over cost because software development is agile and requires the incorporation of the evolving world, that will inevitably change the original contractual terms. However, it was discovered that the DWP implemented a change by deciding that the system would use a hybrid approach for its development that combined both the waterfall and agile approaches. Nevertheless, the two teams that were involved in the system development post the ‘reset’ phase (i.e. the twin track approach) utilised different approaches. The fact that the teams were located remotely from each other and the lack of communication between them had exacerbated the situation, which at least resulted into the absent of coherent practices.

The absence of a UC blueprint until September 2014 contributed greatly to the emergence of incoherent structures and actions that impeded UC’s positive progress. This was topped with an absence of secondary legislation that made blueprint development impossible (Department for Work & Pension, 2015). The major consequence of this situation was the rejection of UC’s proposal for a new IT infrastructure by the Cabinet, after failing to address several fundamental questions, such as the type of security parameter needed to protect UC transactions and the UC integration mechanism with the existing programme, which should have been outlined in the blueprint. Although this constrained their actions, the organisational actors continue to work on the UC system in order to meet the original deadline (see Table 7-4: UC’s provisional timetable from October 2013 to October 2017 This caused the

programme development to be approached in various practices, which resulted in the convergence of solutions that conflicted with the UC’s policy intent and so impeded its implementation.

Table 7-4: UC’s provisional timetable from October 2013 to October 2017

(Source: “Universal Credit: Welfare that Works”, White Paper, DWP, 2010, pg. 41)

Timeline	Actions
October 2013 - April 2014	All new claims for out-of-work support are treated as claims for UC. No new Jobseeker’s Allowance, Employment and Support Allowance, Income Support and Housing Benefit claims will be accepted. Customers transitioning from out-of-work benefits into work will move onto UC, if they are eligible.
April 2014	No new claims are made for Tax Credits.
April 2014 to October 2017	Begin to work through existing cases.

Nonetheless, as the result of interactions with a few of the major institutional actors, such as the Major Project Authority (MPA) and Public Account Committee (PAC) and their interventions (see section 5.5), more legitimate structures were established to guide the implementation of more coherent and integrated practices. Figure 6-10 summarises the research findings (extracted from the House of Commons Works and Pensions Committee’s (2018) report) on how the interactions evolved to shape such practices. The first integrated plan for UC’s ‘policy, IT and operations teams’ was initiated and approved in 2014, after the UC team came under immense pressure from the institutional actors. On top of that, it was reported that this could also be linked to the strong leadership at that time.

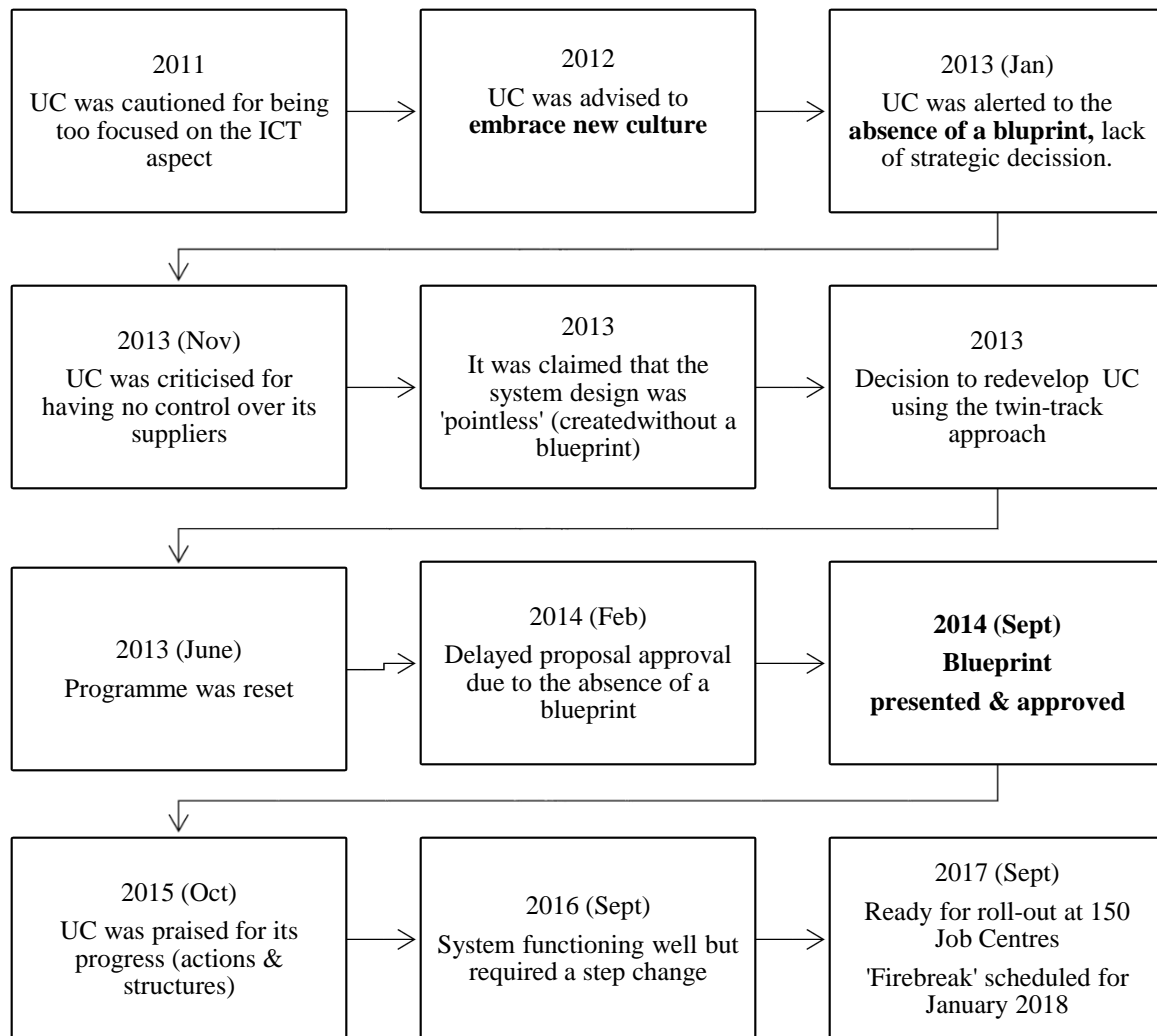


Figure 7-10: Interactions that shape standardised practices

(Own illustration)

7.10 Conclusion

This chapter presents an analysis of the findings for Universal Credit – the DEST case selected to provide empirical evidence for this research. This evidence was extracted using the qualitative strategies of interviews, literature reviews, focus groups, and archival research. The central purpose was to explore how the institutional actors and structures affected the DEST institutionalisation process by elucidating the roles of both in the processual accounts of institutionalisation, as conceptualised in Chapter 3. The evidence was gathered until the

saturation point was reached (i.e. it provided sufficient information for study replication and further coding was not feasible).

As agreed by all of the participants, the main conclusion that can be drawn from the case is that the limited communication efforts made by the policy-makers and lack of empowerment of the executioners in the existence of excessive regulative coercion and build-up external pressures impeded the DEST institutionalisation process, by reducing the actors' capacity to act. Hence, the actions produced were unable to shape the desired structures (i.e. routines and norms) to support DEST institutionalisation. This resonates with the key message of Chapter 3, i.e. the institutional actors and structures play important roles in institutionalising a DEST program. Albeit playing a facilitating role, the structures also constrain actions, and so their interplay can significantly affect the DEST institutionalisation process.

This conclusion supports the researcher's hypothetical assumptions that were based on the findings of the literature review in Chapter 2. However, unlike what was posited in the conceptual framework in Chapter 3, the process of conveying meaning that was made through the act of communication, the process of forming power that was made through authoritative/allocative empowerment and the process of setting norms that was made through reward/sanction occur simultaneously, rather than in sequence. As all of the participants and archival research materials commonly confirmed this, it can be argued that the accumulation of further evidence would have led to similar findings. A detailed synthesis of this will be provided in the next chapter, together with the revised conceptual framework.

Chapter 8

CHAPTER 8 : DISCUSSION

8.1 Introduction

This research has explored the institutionalisation of Digitally-Enabled Service Transformation (DEST) in the UK's public sector (PS) using the case of the Universal Credit Programme. The review of the literature on DEST revealed various factors that impede the institutionalisation of DEST in the UK's public sector. Adopting the Institutional Theory as the lens, most of the DEST institutionalisation literature limited its debate to the concepts of isomorphic pressure and isomorphism, elucidating the factors underpinning the institutional changes and their patterns. Based on the assumption that technology will become institutionalised once it becomes part of the institutional routines, and that routines are formed through the interplay between the institutional structures and actors over time and space, these studies acknowledge that actor-structure interactions underpin the institutionalisation process. Nonetheless, a detailed account of such transformations is rarely highlighted.

Given that the focus of this study is on the roles of the institutional actors and structures in institutionalising DEST, it discussed the effects of the actor-structure interplays in bringing about institutional change and its institutionalization outcome in the context of the UK's public sector, utilising a combination of the Institutional Theory and Structuration Theory concepts. Based on the literature review, this study argues that the actors' actions and structures recursively shape each other in institutionalising DEST. Albeit constraining actions, structures also guide the desired actions. Meanwhile, the actors who replicate the structures in their actions will help to preserve them, while those who revise the structures will modify or change them. The replication of structures is important in routinising the practices associated with DEST before it can become institutionalised. Such replication is

determined by three key factors: the actors' (i) understanding of (the benefits of) the structures; (ii) power in authorising or allocating resources to facilitate the desired actions, and (iii) value of the structures. Meanwhile, the findings from the preliminary case study suggest that these factors are largely ignored in many DEST cases. Therefore, the research discovered that there is a need for a better understanding about what can be learnt from the interplay between the actors and the structures during the institutionalisation of DEST in the public sector context and how this understanding might inform better practices in the future.

To do so, this study developed a conceptual framework based on the combined concepts of Institutional Theory and Structuration Theory. Thereafter, this study discusses various methodologies to validate the framework, and chooses an exploratory case study that involves multiple sources of evidence as the qualitative method of inquiry, which is best suited to the research. The research then presents the case study, followed by its findings, to help the researcher to address the research question and propose a refined conceptual framework that frames the processual accounts of DEST institutionalisation in PS. This chapter will now revisit the findings and discuss them in light of the institutionalisation and structuration concepts described in the prior literature.

8.2 Deinstitutionalisation – The Erosion of the Old Organisational Practice and the Introduction of DEST

The UK's public institutions are defined by certain sets of highly institutionalised practices, rooted in the Britain government, i.e. one of the oldest governments in the world (gov.uk, n.d.). Nonetheless, even highly institutionalised practice is susceptible to deinstitutionalisation, due to organisational and institutional pressures. The case of the Universal Credit Programme provides empirical evidence regarding how the organisational (i.e. endogenous) and institutional (i.e. exogenous) pressures have impeded the stability and

legitimacy of a highly institutionalised practice, i.e. the UK legacy benefits system, that has been in the existence for over a century.

Deinstitutionalisation refers to the erosion and discontinuation of an institutionalised practice within an institution or organisation (Oliver, 1992a). Zucker (1988) associates this phenomenon with the “modification of rules under the pressures of varying circumstances”, which often starts with symptoms, such as the erosion of beliefs, that finally give rise to the questioning of matters that have previously been taken for granted, and the depletion of regulative systems that increase the chance of unfit practices being discontinued. Frequently, the process is given a myopic view as institutional pressures. In the context of the Universal Credit case, the deinstitutionalisation of the former UK’s benefits system suggests that, under certain conditions, organisational change or its behaviour is explained by the discontinuation of the shared practices or of the organisational members. It happens when the DWP refuse to continue accepting the practice that once a legitimate conduct of its members by stop replicating it.

This situation indicates that changes in organisations are also a powerful force that can alter the organisation practices, besides the power of institutional pressures, which is external to the organisation. The researcher observed that the internal changes involved in this case include the challenge to the status quo (i.e. the former benefits system) and the declining consensus among the organisational members regarding the value offered by the old practice. These are the conditions where institutional pressures are less likely to have a major influence on the erosion or discontinuation of practice. Hence, this suggests that, although these practices were long institutionalised within the organisation, i.e. they had become part of the organisational values or culture yet were also vulnerable to changes – especially if these changes were triggered from inside the organisation. This contradicts what the Institutional Theorists often emphasise regarding the ‘cultural persistence’ of the institutionalised

practices in an organisation. It also sheds light on the non-institutional factors and political processes affecting change in organisations, as well as the internal pressures' effects that are often disregarded by most of the institutionalisation studies on DEST.

It was discovered that, besides the external pressures of social mechanism, technology, economies and politics, the functional mechanism of the existing practice is the strong determinants of deinstitutionalisation. While the inertia pressures from the institution impede the change process, the organisational entropy (i.e. the lack of change order and predictability) expedite the degree of deinstitutionalisation. This is aligned with Oliver's (1992) findings, i.e. the interplay between all of those factors contributes towards the rejection of the former benefits system, as well as corroborating Scott's (2014) argument that the assertion of institutional pressure can breed rejection, which resulted in the discontinuation of an institutionalised practice.

8.2.1 Endogenous Pressures and Deinstitutionalisation

Oliver (1992) suggests that an institutionalised practice potentially erodes when its legitimacy is questioned. This situation arose in the case of the legacy benefits system, where the system was claimed to be 'benefit trap', rather than helping the benefit receivers to leave the welfare system, i.e. the system's effectiveness conflicts with the intended outcome of providing 'temporary support of income' (Norris, 2016). The constant queries about the performance of the system increased the disagreement on maintaining the status quo of the benefits system among the 'powerful' organisational members, such as the DWP's Board of Directors, which was followed by increased pressure to adopt a new system (i.e. Universal Credit).

In chapter 5, the researcher mentioned that the Universal Credit story started when the (then) political leader visited an housing estate in the UK, where he was surprised to see the socio-economic condition (i.e. poverty, illiteracy, desertion and addiction) of the people who lived

there, who were also benefit recipients. He concluded that it was the benefit system that kept them in such condition, and thus advocated that the system required improvement (Timmins, 2016b). His action revealed that there existed serious performance issues related to the existing system. Besides, it was also discovered that the existing practice was unable to detect fraudulent benefit claims, and there were also circumstances where the benefits were being miscalculated. Other dysfunctional elements that were reported in the case narration included the fact that the existing system made jobs entailing fewer than 16 hours of work per week unfeasible (unpaid), the loose claimant commitment has failed to induce the unemployed to search for a job, combined with the absence of sanctions to make the benefits receivers off the system as well as the absence of work coaches to guide the job seekers.

From the theoretical perspective, the emergence of problems with certain practices led to doubts among the organisational members who legitimised the practice, promoting further disagreement on the decision whether or not such practice should be revised or abandoned and replaced to clear the issue. Meanwhile, the performance crises will increase the fragmented interpretations of the appropriate practices (Oliver, 1992a). The ‘disagreement’ among the organisational members signposted the erosion of ‘shared values’ within the existing practice. In the meantime, the urge to adopt new practice indicates queries regarding the appropriateness of the institution maintaining the old practice as a reaction to the institutional pressures.

The former system’s performance crises had further developed a non-consensus among the institutional members. This non-consensus was explained in the case narration, where the actors who agree with the Universal Credit idea were initially unable to gain support from the Members of Parliament. Nonetheless, these actors continue to deviate from the ‘usual norms’, i.e. implementing the transformation before the passing of legislation, as it was realised that the implication of the status quo for the government was more severe. Furthermore, the

advocators of such an idea had also built political support by obtaining an endorsement from the Prime Minister, to protect their interests and to reject institutionally-prescribed practices. Since a ‘common interpretation’ of institutional values is fundamental in ensuring practice replication (Meyer & Rowan, 1977; Scott, 2014), the development of these fractions expedited the deinstitutionalisation process and total abandonment of the (then) institutionalised practice. This effect was intensified when the powerful organisational actors (i.e. the Secretary of State and Permanent Secretary of DWP) had no further intention of maintaining the practice. Although this creates other issues (discussed in section 7.4), what the researcher argues here is that the act of discontinuing normal practice is subjected to the pressure imposed on the legitimacy of maintaining the status quo, as well as the interests of the powerful actor(s). At this point, the case elucidates the evidence on Meyer and Rowan's (1977) argument that the perpetuated institutionalised rules about the appropriate conduct disintegrates when the shared institutional values regarding acceptable practices are displaced by organisational and individual interests.

8.2.2 Exogenous Pressures and Deinstitutionalisation

It was suggested that the majority of the institutionalised practices originated from the enduring dependency on the specific institutional conventions. This explains why the public organisations adhered to a standardised category of institutions and regulations, as the result of conformance to the government's expectations regarding conventions and performance standards. In relation to this, DiMaggio and Powell (1983) hypothesised that organisations are more able to resist the demand made by ‘whom they are not dependent’. Agreeing with this hypothesis, the researcher suggests that the direct dependency of the organisation (i.e. the DWP) on the UK government made it unavoidable for it to perform what was demanded of it. This argument made explicit reference to the agreement of the DWP to implement the UC

programme when asked to do so by the government (i.e. the Secretary of State), in the absence of prior consultation with other organisational members.

The impact study carried out by the Centre for Justice (see Chapter 5) suggested that unemployment will be the biggest threat to the UK economy if the current benefit system is maintained (i.e. status quo). Furthermore, the depletion of fiscal resources in the UK forced the government to implement DEST in order to manage the increasingly complex public demands with fewer resources (National Audit Office, 2013). On top of that, the change of economic orientation, i.e. towards the digital economy, urged the government to develop both digitally-enabled facilities to support the transition and growth of such economy, as well as the human capital that is the key driver of national productivity and innovation in the digital economy era. Meanwhile, the rampant evolution of Internet Communication Technology (ICT) advanced digital tools in many ways, especially in enhancing the citizens' participation (Donelan et al., 2010) and enriching citizens-government engagement, which lured the government to embark fully on digitally-enabled services. Moreover, such advancement has shaped new forms of expanded behaviour and expectations among the world's citizens, including in the UK (Solis, 2016), which potentially could be fulfilled by digitally-transformed public services. The development of government policies such as the "UK Digital Strategy" and "Digital by Default" put accumulated political pressure on public institutions to transform their services digitally. Nonetheless, the idea of innovating practice emerged long before the changes in the country's economy landscape. The severe implication of maintaining the legacy benefit system for the UK's economy was propagated as the political party's commitment (i.e. Fixing Broken Britain) by the political actors in the battle for political power during the general election. Thus, the party was obliged to implement this idea after it had been elected to government.

This highlights that the perceived value of an institutionalised practice is erodible if the need to conform such a practice is no longer expected or demanded by its constituents. The condition is where the entropy reigns supreme.

8.2.3 Post-Deinstitutionalisation

The deinstitutionalisation of the UK's legacy benefit system requires the practice to be replaced. As such, the institutional actors had decided to introduce a new policy initiative as the strategic response to the preceding institutional pressures, i.e. the Universal Credit Programme.

This response is crucial in enabling the organisation to regain its legitimacy. Jun and Weare (2010) posit that pressures could determine the success of any institutional innovation, and that the exogenous pressures have a greater impact on the outcomes compared to the endogenous pressures. Agreeing with this, the researcher suggests that the constant pressures exerted on the old practice successfully facilitated the deinstitutionalisation, while the pressures on the new Universal Credit programme assisted the institutionalisation process.

The emergence of new government policies, such as the budget cuts and the Digital UK initiative, has led the government to manage the funds allocated for benefits payments more effectively. As such, a new system is required to help the department to minimise payment errors, such as fraud and miscalculations, as well as benefiting both sides by making the payment based on the real-time information provided by another public agency. Combined with the dysfunction of the previous benefits system in helping the benefit receivers to exit the system, these factors form the biggest motivation for this programme. In addition, the global trends in online public service delivery and the advancement of ICT, that altered the citizens' demands and expectations, further expedited this transformation. Next, the strong political will had helped to push through innovation, even in the absence of many supporting

structures. Despite the claim that this was largely due to political interests, the researcher contends that a strong political push is a pre-requisite for a transformation of this scale and scope. Although this may be disputed by benefit claimants, the researcher argues that this innovation was timely and potentially helped the country to overcome the economic challenges it faced, by pushing some of the benefit receivers back to work. Despite the importance of this deinstitutionalisation in transforming the old practice, navigating the institutionalisation of Universal Credit is an extremely challenging task.

8.3 The Universal Credit Institutionalisation Debate

As discussed in section 7.2, the deinstitutionalisation of the UK's legacy benefits system resulted in the destruction of legitimacy and the discontinuation of such practices. As Greenwood and Hinings (2006) theorised, an 'alternative structural arrangement' will emerge to replace the discarded practice. In this case, Universal Credit is the structural arrangement that is envisaged to replace the old welfare system. Initially, UC was planned to be fully implemented by 2019. Nonetheless, it was delayed until 2022 due to unforeseen circumstances and outcomes that impeded the UC institutionalisation process.

Zucker (1987) associates the meaning of institutionalisation with the idea of rules, i.e. the standard accepted by the institutional and organisational actors, as well as the idea of independence, i.e. the structural arrangements due to being affiliated with a particular actor or situation. Meanwhile, Tolbert and Zucker (1983) conceptualised institutionalisation as a condition whereby the formal structures' constituents are commonly accepted as necessary and appropriate by at least the majority of the institutional actors, and such determines organisational legitimacy.

Scott (2014) defines organisational legitimacy as the rational and efficient way to act, or a state where a desired standard of efficiency is successfully communicated to the institutional

members and exists in their mind as the guidelines for actions. Hence, the legitimacy of any structural arrangement is conditioned by sharing its meaning and asserting its significance. Another view claims that legitimacy is when the structural arrangement is widely accepted by the society residing the context, particularly if this provides a solution to the encountered issue (Tolbert & Zucker, 1999; DiMaggio & Powell, 1983).

Meyer and Rowan (1991) proposed that legitimacy is conditioned by the existence of two environment types, i.e. the technical environment and the institutional environment. They suggest that the technical environment justifies the organisational function to society through the economic perspective, while the institutional environment (constituting the legal, cultural and social systems) produce and assert pressure for the organisation to function.

Tolbert and Zucker (1999) suggest that institutionalisation occurs in three stages, i.e. pre-institutionalisation, semi-institutionalisation, and total institutionalisation (or sedimentation) stages.

8.3.1 Habitualisation: Universal Credit as a New Welfare System

They suggest that the pre-institutional stage describes the absence of previously institutionalised practices, due to the assertion of pressures that are external to the organisation as the result of shifts in technology, regulations or market forces. As previously discussed in section 7.2, there are other antecedents for this absence, i.e. the assertion of pressures that are internal to the organisation as a result of shifts in the actors' interests as well as organisational performance. The researcher also discussed how such pressures penetrate the organisation and destruct the legitimacy of the previously institutionalised practices. Here, the researcher stresses that the role of institutional pressure can be conceptualised as falling into two parts, i.e. to stabilise the organisation or institution through homogenising practices, or to change the dysfunctional and politically unsupported practices

to attain the desired performance and regain political support. Regardless of the purpose, pressures breed contradictions among the organisational actors or structures. Nonetheless, scholars suggest that such contradictions potentially cultivate institutionalisation's success if they are strategically managed (Battilana and D'Aunno, 2009; Battilana et al., 2009). The process of managing contradictions is conceptually situated within the pre-institutionalisation stage, i.e. habituation.

Habituation is the post-deinstitutionalisation stage, where the organisational actors attempt to respond to the stimuli perceived by proposing solutions. These solutions are constructed based on two activities, i.e. monitoring and theorising. Because instability creates uncertainty, the actors will incline towards imitating the legitimate structural arrangements of other organisations within similar institutions, and refine the arrangements according to their context. This stage involves a huge degree of sense-making process that is linkable to the actors' values and resources enabled-cognitive activities. Treating them as stimuli, the actors refine the solutions based on their stock of knowledge and values regarding the stimuli. Moreover, their responses were also influenced by their capability, including their degree of authority to influence the actions of others as well as manipulate the available resources. Hence, the actor's background and agency (i.e. knowledge, culture, value, social position and job role) influence the shape of the proposed solutions. The activities of reconciling the solutions are known as theorising, where the actors have to achieve a common agreement among all (or at least a majority) of the organisational members on one solution to be proposed as the new structural arrangements i.e. practices.

Battilana (2006) suggests that agency (i.e. the capacity of an actor to perform actions in the organisation) is enabled by the social position of the individual in that organisation. Social position is the position gained by the individual actors due to being a member of the organisation or a certain social group. This social position shapes the actor's evaluation of the

potential impact of his/her actions, which consequently has a huge influence on his/her decision to act. Besides social position, the actor's experience plays an important role in shaping his/her action by relating it to its significance. Experience constructs tacit knowledge that enables the projection of impacts or the leading outcomes of the actor's actions, thus facilitating the development of structures that can generate the desired actions by other actors. In this context, the knowledgeable actors are reflected as having a capability creatively to structure actions through the available resources. Structuration Theory treats this activity (i.e. signifying or interpreting actions) as very significance in the agency building process, which also explains the importance of 'theorising' activity in the habitualisation stage of pre-institutionalisation. Theorising is a complex activity that encapsulates intense structuration processes, and thus is extremely critical in determining the success of the institutionalisation process.

Since the actors in the DWP come from different backgrounds, a variety of solutions exists, thus decreasing the potential for obtaining equivalent solutions. In other words, few organisational actors share similar solutions. To reach a common-agreeable solution, the actors use the structural/processual contradictions management strategy. While a structural contradiction refers to the tensions between the material and ideal elements of the unified opposites in a system (Seo and Creed, 2002), the processual contradictions that acquire space in the institutional process and its arrangements exist in three forms – i.e. stability or change contradictions, structure or action contradictions, and internal or external contradictions (Hardy and Maguire, 2017). These contradictions are managed through either one or a combination of approaches suggested by Hargrave and Van de Ven (2006), i.e., the Either/Or Approach, that eliminate practices that conflict with the prevailing institutional logics; the Moderation Approach, that trades-off one practice with another to minimise resource utilisation; and the Both/And Approach, that uses contradictions as a source to innovate.

From the analysis, the researcher suggests that the last approach (i.e. the Both/And approach) was used by the actors involved in the case of the UK's benefits system, for its potential to achieve success in the pluralistic organisational context, such as the DWP. The approach maintains organisational values while changing the illegitimate practice, thus providing stable ground for the process. This approach mimics the economic process of responding to institutional demands as advocated by the proponents, while adhering to the core values of the firms as demanded by the opponents (Suddaby et al., 2010).

The idea of a new structural arrangement replacing the old benefit system was formally communicated by the political actors in the White Paper, to signpost that consultations and discussions with other actors were welcome, before a Bill was presented to Parliament. The clear, concise messages were sent throughout the organisations, and were thus accepted by the majority of the organisational actors. This acceptance was primarily due to two important aspects of the reform, i.e. the design of the new system and how it would be administered, which was believed to be able to reduce the workload of the actors who rendered such services, while also improving the effectiveness and efficiency of the claim process and payments, and the potential ability to lift a significant number of claimants out of poverty through work. The issuance of the White Paper and, prior to that, the consultations made with a certain group of institutional and organisational actors indicates the adoption of a 'collaborative co-creation concept' in negotiating the proposed structures were at the same time gaining support from the organisational actors. Since the solution is commonly agreed as the replacement of the old practices, it is viewed as being introduced to the organisation as an innovation, before entering the semi-institutionalisation stage.

8.3.2 Objectification: Dispersion of Universal Credit Practices

The main characteristics of the semi-institutionalisation stage are the wider dispersion and more enduring practices of the innovation, which are the outcome of the objectification process (Tolbert & Zucker, 1999). The introduction of innovation produced in the pre-institutionalization stage led to the adoption of new practices among the organisational actors in order to improve the organisational performance. This corroborates the argument proposed by Bertot et al. (2016) that ‘consideration of the political, policy, governance, and institutional contexts of public service delivery’ is required upon the introduction of innovation in public institutions. Hence, this process happens during the semi-institutionalisation stage of objectification.

The objectification process is enabled by two sub-activities, i.e. monitoring and enhancing performance. Nonetheless, the fact that no other government transformation programme, whether in the past or present, was equivalent to the scale and scope of the Universal Credit Programme complicates the objectification process, and thus it takes longer to produce an outcome. This is the stage at which Universal Credit is currently. However, through the process of “organisational learning”, the UC finally reached the point where it is now on the right track.

The evidence of the case suggests that these learning processes were contributed to by the intense interplay between the DWP actors and other actors in the UK’s public institutions. Among the external actors that actively engage with Universal Credit are the UK Parliament (through the Commons – Work and Pensions Select Committee and Public Account Committee, PAC), National Audit Office, the Infrastructure and Projects Authority, the IPA (previously the Major Project Authority, MPA), the Local Government Associations and HMRC. Moreover, the interplay among the DWP actors through frequent meetings and

brainstorming sessions also facilitated the learning process and helped UC to establish good practices to enhance its performance. The inputs gained from these interactions inform the meaning for each action taken by the DWP actors in the context of UC implementation. By understanding the meaning and its impact on UC's structure, the actors improved their actions and established structures that could facilitate others to take the desired actions. In other words, the inputs helped the DWP actors to make sense of their actions and the existing structures guiding them. Among the new structures that emerged to align the actors' actions with the policy intent were the following:

- The development of two new primary legislations (i.e. The Welfare Reforms Act 2012, The Welfare Reform and Work Act 2016)
- 33 new secondary legislations (see Appendix 4)
- A new organisational structure for the DWP, with one dedicated role for Universal Credit, i.e. Director General for the Universal Credit programme (see figure 7-7)
- New procedure for claim processes (see section 7.4)
- New sanctions to encourage claimants to look for a job (see section 7.4)
- A new type of data to feed the claim process, i.e. BACS RTI data (see section 7.4)
- Empowerment of the local councils (see section 7.7)
- Designing a new digitally-enabled system for UC

The inputs from the external actors were gained through a series of engagements that took many forms; for instance, the engagement between the DWP actors and the House of Commons via the Work and Pensions Select Committee from November 2011. The DWP actors were informed by the Select Committee that the overt focus on the ICT aspect of the programme would create a 'transactional processing system', instead of attaining the policy intent of welfare reform (House of Commons Works and Pensions Committee, 2018). They were also advised to change their organisational culture from the old DWP and HMRC,

which is also involved in the development and implementation of the UC programme. The failure of the DWP actors to act on these matters resulted in the programme's major reset in 2013 by the MPA, following serious concerns about the lack of a detailed plan. The reset decision had intrigued the Public Account Committee involvement with UC. The PAC-DWP engagement was prolonged until July 2016. Along the timeline, PAC provided the DWP actors with important insights on the practices in many areas, including management, where they were asked to improve their transparency. In 2017, the inquiry was closed, summarising that actions had been taken on all of the points highlighted to the DWP, and that UC was back on track after being at the brink of failure in 2013. Meanwhile, the findings of the interviews and focus groups suggested that the DWP leaders constantly communicate with the UC team. These communications normally occurred during the special meetings on UC that were held at frequent intervals, where the information gained from the external actors was cascaded down to other organisational actors through the DWP directors for actions.

As mentioned earlier, the outcome of the semi-institutionalisation stage was well-distributed structures that reduce the cognitive processes. Structures are primarily diffused in an organisation through 'normalisation activity' (Lee et al., 2011) and, in the context of technology, its assimilation into the organisation happens through 'institution' – who governs the organisational actors' behaviour and cognition (Orlikowski 1992). The institutional actors would utilise the institutional structures of signification, domination and legitimation to do the followings: (a) influence the interpretation of the meaning of such technology; (b) assert power to enforce technology adoption; and (c) shape the perception that the use of technology is part of the new norms required by the institution (Orlikowski et al., 1995). Hence, the emergence of new structures is part of the UC's normalisation evidence. For instance, the White Paper was designed to help the actors to understand the intention of the welfare reforms, and the significance of UC. Meanwhile, the creation of new primary

legislation was designed to empower the DWP with authority to enforce UC adoption. Next, the digitally-enabled system was to shape a perception that UC is in line with other DEST in the UK's public institution, and also the government's 'Digital Strategy'.

The endorsement given by the IPA at the end of 2014 on how UC was approached by the DWP actors (see House of Commons Works and Pensions Committee, 2018) ascertained that the UC (up to that point) had made immense progress in its implementation. Although the endorsement given by the PAC in 2015 (i.e. that the UC had demonstrated exemplary progress of best practices since 2013 and could be the reference point for digital transformation in government) had further confirmed the previous claim, the evidence of the digital roll-out outcome in 2017 exerts that UC is still actively in the semi-institutionalisation stage. This claim was made based on Tolbert and Zucker's (1999) suggestion of the signs that the semi-institutionalisation stage has been completed, i.e. well-distributed structures. Furthermore, the full roll-out of the live service would only be completed by 2022. Recognising that the degree of undesired outcomes will emerge in full scale after the full roll-out, the researcher believes that the DWP actors would need some time to re-adjust the structural arrangements before achieving the semi-institutionalization stage. Nonetheless, the researcher also suggests that 'monitoring' and 'performance enhancement' activities should be maintained throughout to keep the current momentum of the habituation process. Although the scaling events of the UC live service was warrant to take step moves (i.e. to revise the plan to expedite UC roll-out in 2018/2019), the researcher believes that this would impede the habituation process as well as the formation of legitimate practices associated with the UC. This is due to the perspective that only through such roll-out could the DWP obtain evidence for them to learn, before improving the structures for future distribution.

8.3.3 Sedimentation: Universal Credit as a Legitimate Practice

Sedimentation is the final stage of the institutionalisation process, where the practices associated with Universal Credit will be routinised before being embedded as the organisational norms, forming legitimate practices. The homogeneity of the practices within the organisational field signpost the institutionalised practice (Weerakkody et al., 2016b). The researcher concludes that the signs of sedimentation were absent due to the fact that the UC programme has not yet passed the semi-institutionalisation stage (i.e. objectification). The evidence can be observed in the case where heterogeneous practices exist among the Job Centres in processing the UC claims and payments, due to the selected digital service roll-out.

8.4 Structuring Universal Credit Institutionalisation

Advocating that institutions and actions are closely connected, Barley and Tolbert (1997) characterised the institutionalisation process as an evolving and dynamic mechanism, constituting the interplay between actions and institutions. Their lens allows the researcher to understand the process of institutional change and reproduction.

Based on the “duality of structure” concept of Structuration Theory, the researcher analysed the outcome of events of the Universal Credit Programme that developed during the period of research. Giddens (1984) views structure as a product of action, and action is maintained or modified through structure. Therefore, the researcher paid great attention to how the institutional and organisational structures were drawn in the actors’ actions, and such actions helped in producing or reproducing the structures.

The case of UC provides lessons regarding the interlaced roles of the actors and structures throughout the stages of deinstitutionalisation to semi-institutionalisation. As suggested, the

role of the actors (internal, external, groups and individuals) was explored through the implications of their actions for the structures. Since the researcher treats structure as the product of and guide for action, the role of the structures was explored through their implications for action. These interplays were mapped against Giddens' (1984) Duality of Structures Model, which was conceptualised as 'dynamic' and sequential, rather than static (see Barley and Tolbert, 1997). Giddens' (1984) model depicts two realms of institution (i.e. signification, domination and legitimation) and actions (i.e. communication, power and sanction), which are connected via modality (i.e. interpretive scheme, facility and norm).

Their interconnectivity can be read as follows. The interpretation of meaning would impact on the signification structure, i.e. the idea that if the practice is significant and aligned with institutional value, which is done through communication. Meanwhile, empowering the actors with allocative or authoritative resources would allow them to act (or shape the actions of others) in accordance with the (new) value, whereas sanctioning undesired practices would shape the legitimacy principle in the organisation, which helps to normalise the desired ones. This model echoes that actions are a powerful source for structural change. As such, UC's institutionalisation success depends on the actors involved in this transformation process.

Based on the notion that an institution is exogenous to action (Scott and Meyer, 1994), the researcher found that UC emerges as a new structural arrangement, mainly as the result of the external pressures on the DWP. Meanwhile, the internal pressures (i.e. the demand for a functional system to replace the former benefits system) only started to emerge after the external pressures penetrated the organisation via the actions of the political actors and organisational leaders. Gradually, the internal pressures forced the organisation to replace the old practices with new ones to 're-legitimate' the system. As the result, the UC idea was introduced in 2010.

The main actors in this case are listed in Appendix 4. These actors work collaboratively to establish the current structures of UC. The “Easterhouse Epiphany” incident signposts that even individual actors, especially powerful ones such as the leader of the DWP, played important roles in UC’s institutionalisation process. IDS, the then political leader who spearheaded this process, was the individual who triggered this welfare reform. Putting this against the Structuration Theory model, it was observed that IDS had established and manipulated the Centre for Social Justice to “signify” the idea of welfare reform through their research publications. After deinstitutionalising the existing benefit system and penetrating the institution post the 2010 General Election, the owner organisation, i.e. the DWP, was pressured to transform the benefits system by adopting the UC programme. Although many actors were involved in this context, only a few individuals and group actors were observed as having direct and significant roles in institutionalising the UC programme (see Table X section 6.3.2).

Nevertheless, the main transformation agent was the Secretary of State for Work and Pensions. The programme involved close work between the DWP and HMRC, but it was fully owned by the DWP. Having said this, the organisational field for this programme is functionally defined. However, since both constitute the same institution, they are adhered to a common public value. Barley and Tolbert (1997) suggest that all actions (i.e. group or individual) are shaped by the institutional conventions (i.e. structures). Hence, holding to the common value is an advantage, because it makes achieving a common agreement among the actors an easy task (Oliver, 1992). Nonetheless, in this case, it also brought a disadvantage. It was such a value that kept the DWP from approaching the programme differently, which brought it to the brink of failure in 2013. This corroborate the evidence gained from the case, where the actors were advised to transform their value “distinct from that which existed in DWP and HMRC” (House of Commons Works and Pensions Committee, 2018). The policy

intent that should underpin the value behind this transformation was the welfare reforms, i.e. the desire to eliminate the benefit trap that kept many claimants in poverty and to improve the efficiency of the benefits administration. The researcher argues that the depletion of the communications effort to signify this logic among the actors led to misconceptions. However, the constant engagement with the institutional actors prevented the ongoing misconceptions.

Currie and Guah (2007) suggest that understanding the institutional logics would give the researcher a better comprehension of the value systems within a particular institution. As the organising principles for a certain field, the institutional logic provides rules of action, interaction, and interpretation for the actors to fulfil the organisation's tasks (Ocasio, 1997). More importantly, the logic constructs a 'cognitive map' that governs the system of meaning and belief that the actors refer to in assigning meaning to all activities in the institution (Scott, 2014). Apart from such collaborations, the case revealed that the DWP's logic was also influenced by the institutional actors residing in the broader public institutional environment. Such an environment constitutes a huge number of institutional actors of different authority and responsibility (see HM Government in Figure 7-1). These actors constantly interact to serve their functions (Waller, 2016). Besides representing the complexity of the functions and roles, this composition indicates the existence of a myriad of logics and the functionally defined boundary of the institutional or organisational field.

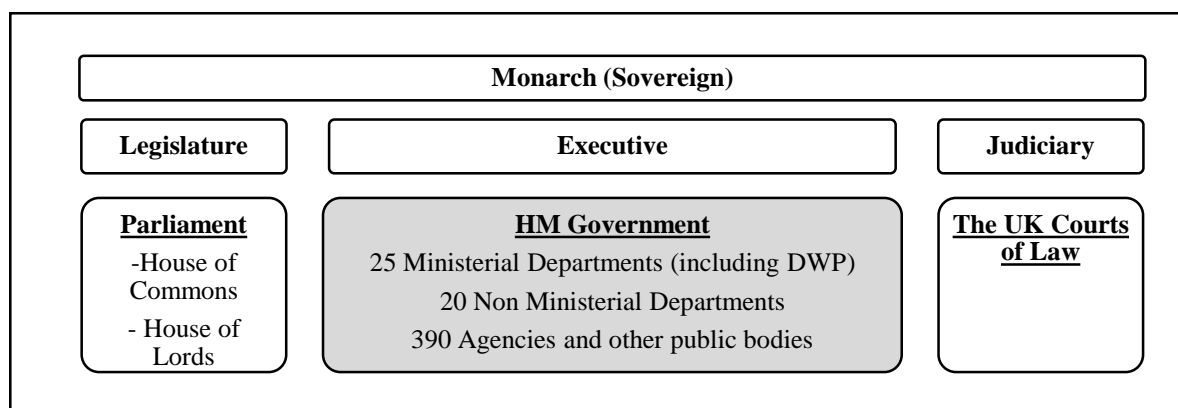


Figure 8-1: The UK Governing Principles

(Adapted from <https://ourgoverningprinciples.wordpress.com/the-uks-westminster-system/>).

At the outset of the public institution is the UK Parliament, which is the supreme legislative body that examines and challenges the work of or decisions made by the government (UK Parliament, n.d.). The government is responsible for running the country and deciding how to deliver public services, including the delivery of the welfare system in the UK (i.e. Universal Credit). Such a function is performed through the Department for Work and Pensions. This department is assigned to the Secretary of State for Work and Pensions, who is responsible for the overall running of the department, including ensuring the success of the Universal Credit programme (Cabinet Office, 2017). The UC programme is also monitored by the UK Parliament with help from the National Audit Office UK (i.e. the group actor), which is responsible for scrutinising the spending of the public money under UC and advising the government accordingly. UC is also subjected to House of Commons’ scrutiny via two platforms, i.e. the parliamentary debates and select committees.

The researcher argues that, to achieve the policy intent of the UC, the homogenisation of new institutional logics is required, because this transformation need the actors to do different things, as much as they need to do things differently (Scott et al., 2000: 349). Nonetheless, the assertion of a ‘public value’ paradigm that suggests that public value can be created

through engagement and exchange between the government and citizens (Stoker, 2006) reformed the old logics about the central role and functional use of ICT in the public institution settings. Hence, accelerating communications between the actors to fuel dialogue about the essence of UC implementation would intensify the logic. This attempt is currently undertaken by the DWP (Department for Work and Pensions, 2017).

As the largest transformation in scale in a highly institutionalised system, the UC should be understood in the wider context, considering the technology, socio-political and economic evolution. It was observed that this understanding is emerging in the organisation and starting to disperse across the public institution context. The UC programme started to gain treatment as policy transformation, rather than a purely digitalised movement to change the administrative tools.

The review of the literature reveals that the UK's public sector has undergone various transformations, particularly in terms of managerial approaches. Each of these styles carries unique institutional logics that have become embedded in the institution, forming the institutional practices. These practices were perfected over time, especially by learning the lessons from the past DEST failures.

Scott (1995) emphasises that actions can be influenced through the three institutional structures of signification, domination and legitimation that were utilised by the organisational actors to interpret the meaning and significance of such innovation, garner the facilities or resources needed to facilitate actions that will help the innovation to diffuse, and perform devising actions to help embed the practice. In the case of Universal Credit, the analysis revealed that the organisational leaders i.e. the Secretary of State for Work and Pensions, the Permanent Secretary for Work and Pensions and the Management team for Work and Pensions Department, had manipulated these structures in order to manoeuvre the actions of the organisational actors. This is in line with the literature that suggests that

organisational leaders tend to manipulate the structures to shape the desired actions (see Hossain, Moon, Kim, and Choe, 2011). Furthermore, the evidence reveals that the institutional actors are also involved in structure manipulations, especially in the current stage of semi-institutionalisation.

As debated in section 7.2, the political leader played a very significant role in convincing the institutional and organisational actors that the old benefits system was illegitimate, as the system suffered from serious performance deficiencies issues that could have negative implications for the country. Subsequently, the system lost the political support of a few of the leaders in the organisation, as well as the institutional leaders. In this context, the signifying structure was utilised to draw rejection and abandonment of such a system, which would give way to a new practice, i.e. Universal Credit. Entailing the abandonment, the leader once again used the signification structure to convey the importance of the old system being replaced with Universal Credit. Through the white paper, the strategic intent and context of the Universal Credit Programme was articulated to signpost thoughts on its value and business needs. In this paper, the stating of the implementation date of the UC system (i.e. three years after its announcement) cognitively implied to the actors that the system was relatively simple to build and easy to use, promoting greater acceptance among the actors. This evidence shows the importance of ‘interpretive schemes’ in institutionalising changes in organisations, as emphasised by Oliver (1992). Oliver (1992), who focuses his institutional research on the “Organisational Structure, Performance, and Choice” category, emphasises that the movement of change inertia in any organisation was deliberately steered by the interpretive scheme, that constituted the values and beliefs of the institutionalised organisational practices. As discussed in section 7.2, the deinstitutionalisation of the UK’s legacy benefits system had resulted in the destruction of the legitimacy of such practice. The introduction of Universal Credit to replace the old system stimulated various interpretive

schemes, which caused new forms of actions and structures to develop. This is what Greenwood and Hinings (2006) refer to as ‘alternative structural arrangement’.

Nonetheless, the manipulation of an interpretive scheme among the actors would have a huge impact in facilitating the institutionalisation of UC. In line with Miller and Friesen (1984), Oliver (1992) argues that organisations naturally resist change because the actors have assigned a certain value to the existing practices that legitimate the organisation. The adherence to this value promotes non-conformance to the new practice, which induces institutionalisation failure. Hence, by manipulating the interpretive schemes, the actors are cultivating the ‘reciprocal typifications’ (i.e. the common interpretation of the meanings and values of the new practice) among the organisational actors, that will homogenise the actions and ensure conformance to the new structural arrangements (Meyer & Rowan, 1977; Scott 2014). As such manipulation entails performance problems in UC (House of Commons, 2011), the actors are advised to provide ‘transparent information’ and hinder the ‘culture of good news’ to enable assistance (Hall & Timms, 2016).

The recent strategy of empowering the local authority, LA (see section 6.8), is the evident domination structure manipulation by the DWP actors. This action would enable the LA actors to be closely involved in designing the best practice to support the UC programme. Since it would be the first interaction point for the claimants, it was hypothesised that LA had better knowledge that could help the UC implementation. Indirectly, such empowerment (e.g. the DWP-LA Welfare Steering Group) assigned the LA actors significant responsibilities and commitment regarding successful UC delivery. Here, the manipulation of the interpretive scheme re-occurs. By assigning such responsibility, the DWP actors signify that UC is a ‘jointly-owned’ initiative, concealing the fact that UC is Whitehall’s tall order.

Our data suggest that the UC case promoted that actions and institutions recursively shape each other, similar to the tendency in the institutional theory literature (Barley and Tolbert ,

1997). Yet, unlike what a stream of literatures suggests, that institutionalisation is a non-linear process (Wendy L Currie and Guah, 2007), UC was moving in a linear way from one stage to another. Although UC's progress was impeded by conflicts of logics, this is common during the semi-institutionalisation stage (i.e. the objectification process), since the stage encapsulate activities where the actors intensely revise the structural arrangements. The multi-sourced data suggest that conflicts that emerge from the contradictive meaning interpretation, norm legitimation and resource mobilisation, due to interactions with the external actors, were managed and used to inform better practices, rather than distracting the linear process of institutionalisation (Lawrence et al., 2009). The case also suggests that every activity in the institutionalisation process involves intense interplay between actions and structures across time and space. Meanwhile, an institutionalised practice emerges as the product of the structuration process.

Against a continuously changing backdrop of welfare reform, the UC is currently less than five years away from its (latest) planned total national roll-out. Although it is still too early to forecast its success, the research's findings suggest that constant engagement with actors who are external to the DWP as well as those who are implicated with UC use is critical and therefore has to be maintained until the programme had been institutionalised. The success of this transformation is of far greater importance than meeting the dateline. Hence, despite frequently missing the datelines (Government, 2017), the programme should be allowed time to progress, since 'social practices ordeal across space and time' (Giddens, 1984). UC is beyond the usual digital-enabled programmes and not just about implementing a new ICT system. UC requires structural transformation among the organisational actors, as well as the institutional actors supporting it. As the DEST of this scale never existed in the UK's public institution, the actors should be allocated resources such as allocative and authoritative

power, as well as time to ‘learn’ from the unfolding outcomes of the institutionalisation to progress and improvise the structures for better practices.

This research argues that the stipulation of institutional and organisation structures has a reciprocal influence on DEST stipulation and both aspects manifest each other. Henceforth, the stipulation undergoes an iterative, recursively spiral process of the reciprocal shaping of practice that leads to DEST institutionalisation in the research context. This dimension extends the technological institutionalisation and e-government literature.

8.5 Key Illustrative Results: The Conceptual Framework for DEST Institutionalisation

The main outcome of the initial study of the four cases (as discussed in Chapter 3) and the argument on the Institutional Theory and Structuration Theory in (as discussed in Chapter 4) is the tentative assumptions about the institutionalisation cycle, such as how innovation and its associated practices are institutionalised through a sequence of processes, actions and structuration procedures, and the key operationalised concepts (depicted in Table 7-1, section 7.2) that underpin the study of UC. Based on the synthesis of the findings from the UC case,

the DEST institutionalisation process is mapped and depicted in

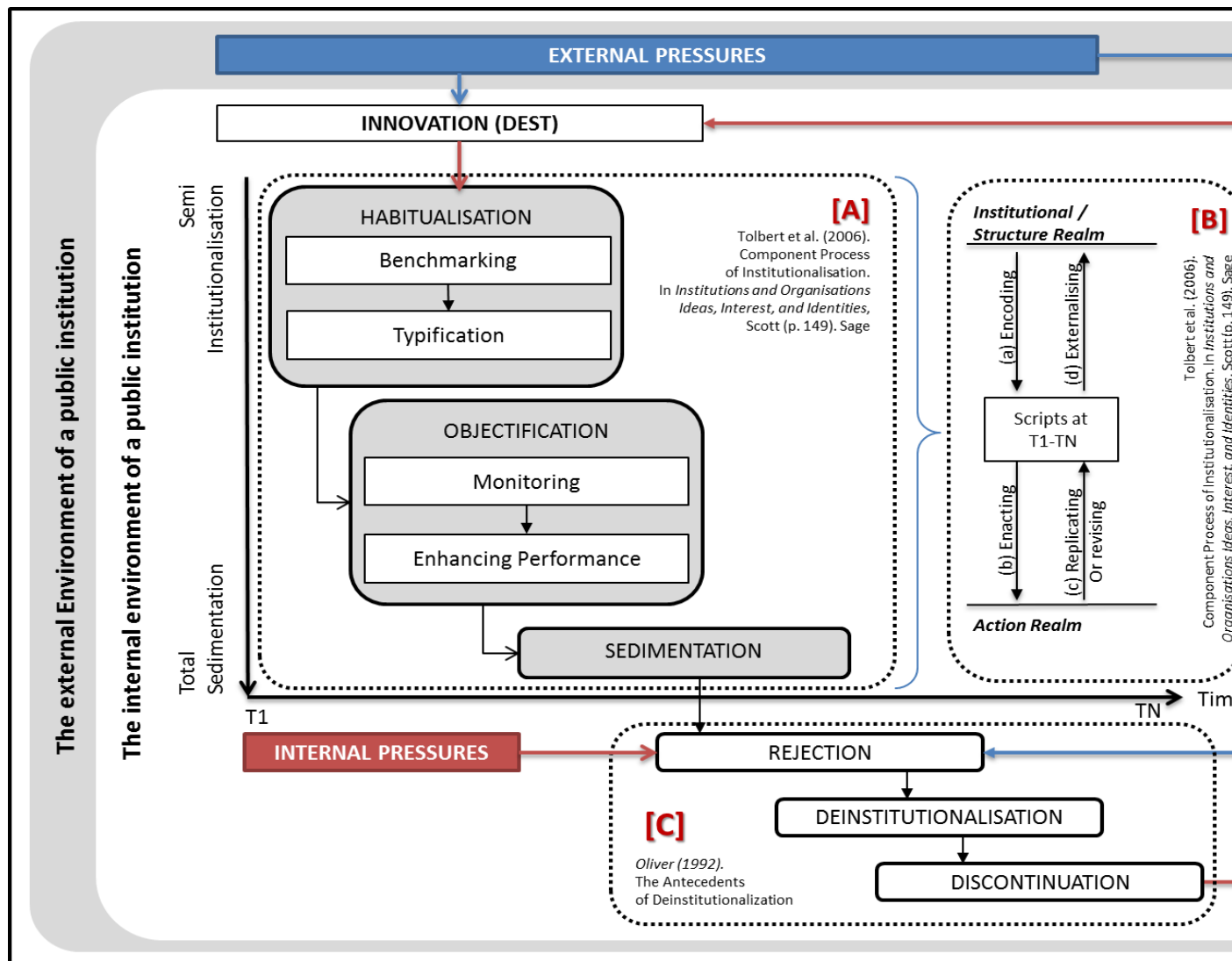


Figure 8-2.

There are four main differences between the initial conceptual framework and the final conceptual framework, where the revised conceptual framework introduces the followings:

- i. The source of pressures (i.e. external and internal pressures) that cause the emergence of innovation (i.e. DEST) in the institution.

- ii. A new stage of “rejection-deinstitutionalisation-discontinuation” (encapsulated in box C) to better conceptualised and understand the implication of asserting internal and external pressures towards an institutionalised practice.
- iii. Two axis – i.e. institutionalisation status (from pre institutionalisation to total sedimentation) and institutionalisation time (from T1 to TN) to imply that institutionalisation is a social phenomenon that evolves through time and context.
- iv. The interplays between institutional and action realms that recursively shape each other in facilitating the institutionalisation process (depicted in box B).

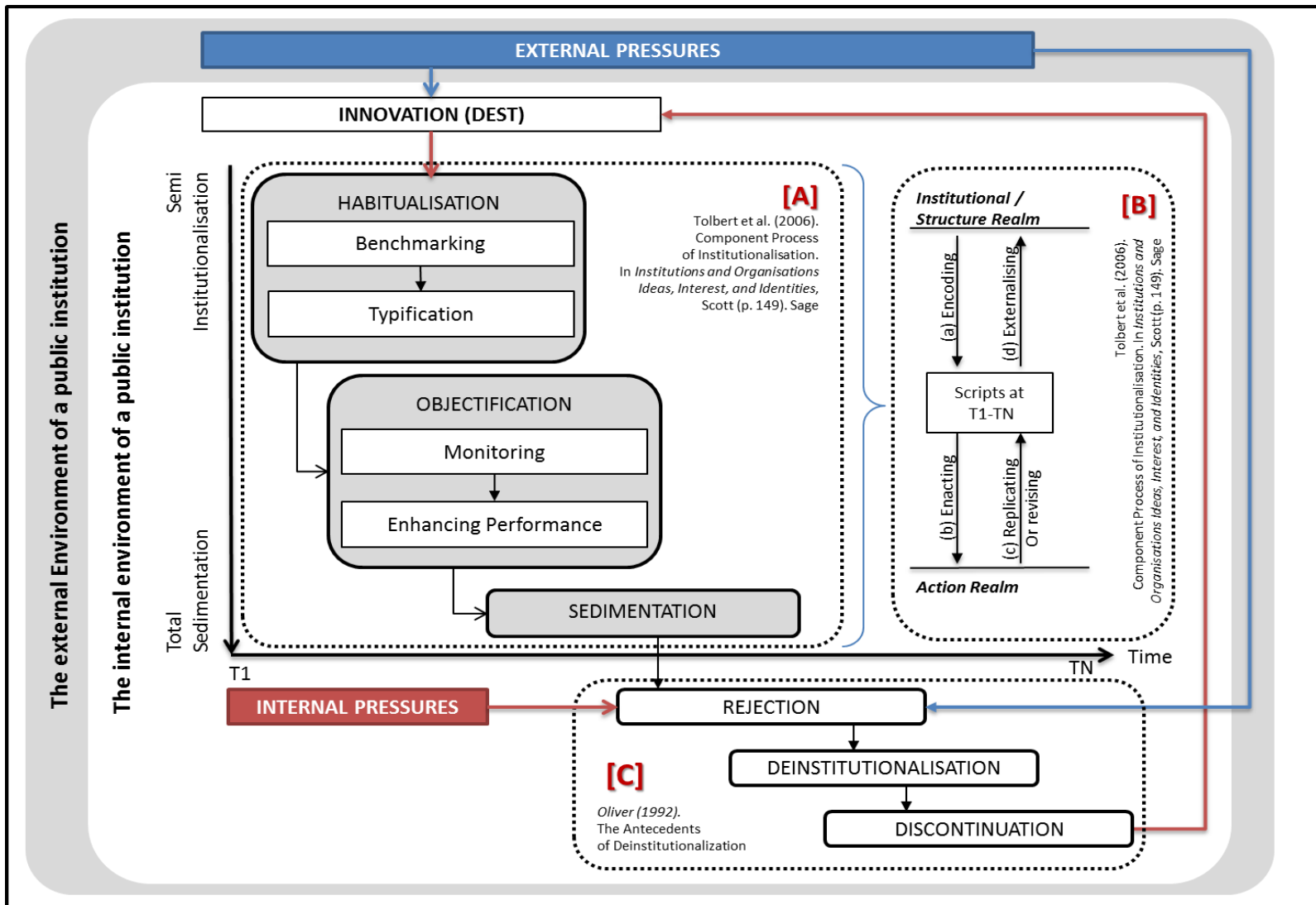


Figure 8-2: Revised Conceptual Framework for DEST Institutionalisation

(Own illustration)

This should be read in the following manner:

g) Context:

Change is contextual and happens through social processes. Because the institution shapes actions, public organisations are susceptible to change when exposed to institutional pressures. Thus, the interplay between both the institutional (external organisational environment) and organisational (internal organisational environment) environments should be conceptualised in order to gain a better understanding of the whole process.

h) Innovation:

There are two potential sources that can lead to the introduction of DEST as an institutional organisation. The first source refers to the assertion of institutional environment pressures, and the second source refers to the discontinuation of the existing practice. In both circumstances, DEST is produced as the organisational strategic response.

i) Institutionalisation and Time Axis:

The two axes suggest that innovation is movable from top to bottom (as it becomes more institutionalised), and left to right (as time passes). Nonetheless, these movements are determined by the progress of each stage in (c).

j) Component Process of Institutionalisation:

Adopted from Tolbert et al. (2006), the three component processes of institutionalisation are habituation (e), objectification (f) and sedimentation (g). These processes are iterative, spatial and temporal in nature (see explanation in (h)).

k) Habituation:

The introduction of DEST as an organisational innovation will provoke reactions among the actors, who then respond by seeking ideas for solution. These ideas will arise from the act of 'inter-organisation monitoring', where the actors compare the successful practices and structures available surrounding them, before suggesting them as the solution. Based on their knowledge, the actors will then propose required actions and structures as a solution. This stage is known as theorisation. The diverse background of the institutional actors in the field causes myriads of proposed solutions, and decreases the chance of identifying a common solution. This risk should be overcome by rationalising the solutions through communicating their meaning to other actors. In this stage, the understanding and acceptance of others regarding an identified common solution is critical, because that will condition its adoption in the next stage. Once the common solution has been identified, the process will move on to the next stage.

1) Objectification:

In the objectification stage, the actors will perform a monitoring exercise, where the solution is compared with other solutions that are internal or external to the organisation. This is to refine the solution before it is adopted and diffused across the organisation. Once refined, the authors will use their power to authorise or allocate resources to implement the solution. This is the stage where this solution is diffused across the organisation for the homogenisation and routinisation of the structure and practices. Continuous interventions will be required to facilitate the process of embedding such structures and practices into the organisation as a norm. Once they become norms, the practices and structures will move to the next stage.

m) Sedimentation:

Sedimentation is the last stage in the institutionalisation process, where practices and structures are detached from their original actors, taken for granted and continually rest as part of the organisational culture. This is the stage in which DEST will become institutionalised.

n) Actions-Structures Interplay:

This concept was based on ‘the dynamic sequential institutionalisation model’ that was originated by Barley and Tolbert (1997), and ‘the duality of structures concept’ proposed by Giddens (1984). It involves the continuous interplay between the actors and structures throughout the period, from deinstitutionalisation to sedimentation through scripts (i.e. interpretive scheme, authoritative/allocative and normative). During the interplays, the structural principles (i.e. signification, domination and legitimation) are encoded into scripts before being enacted in actions (i.e. communication, empowerment, sanction). These actions then transport the replicated or revised structural principles via scripts and externalise them to reinforce or modify the existing structures. These interactions recur until the desired practices and structures become institutionalised.

o) Rejection:

The assertion of pressures from both the organisational environment and the institutional environment will trigger rejection of the institutionalised practice.

p) Deinstitutionalisation:

Deinstitutionalization represents the non-alignment of the institutional pillars, which triggers a need for innovation. The unaligned normative pillars deviate the practices between the institutional and organisational actors, causing the fragmentation of understanding. Meanwhile, the unaligned regulative pillars emerge due to performance issues in the organisations (i.e. functional pressure), or a loss of political support (i.e. political pressure). The first situation erodes the beliefs in certain practices that leads to the questioning of their logic, while the latter impedes the practices through the weakening of the associated legislative or political interest.

q) Discontinuation:

The deinstitutionalised practice is abandoned and discontinued, and thus needs to be replaced by another practice. This resulted in the introduction of new innovation, which then will follow similar steps in order to be institutionalised.

Note: (i), (j), and (k) are adopted from *Oliver (1992)*, “The Antecedents of Deinstitutionalization”.

8.6 Summary

This chapter has discussed the results of the research findings presented in chapter 6, where all of the presented arguments were supported with existing literature. The discussion started with the deinstitutionalisation of the old legacy benefit system in the UK, highlighting the process of how an institutionalised practice can be rejected and abandoned. Subsequently, it discussed Universal Credit’s institutionalisation in light of the three-step process. Thereafter, it discussed the structuration process that occurs within the institutionalisation process. Finally, it proposed a new conceptual framework to study the institutionalisation of DEST in

PS. The discussion of the findings highlighted the significant contribution to the field of DEST in the public sector. In summary, the findings of this research reveal that institutionalisation is a spatial yet linear process. It encapsulates a series of intense interplays between actors and structures. In such interplays, the actions and structures recursively shape each other to form an institutionalised practice via the structuration process. The results of this research highlighted three important aspects regarding DEST institutionalisation. First, exogenous and endogenous pressures could trigger deinstitutionalisation, even regarding the highly institutionalised practice. Second, DEST is inseparable from the social context, and thus should not be treated as technology transformation alone. Third, the actors have to utilise three structures (i.e. signification, domination and legitimation) to facilitate the desired transformative actions. Fourth, the actors have to maintain constant engagement (for input) with other actors to inform better practice formation. The practical and theoretical contribution of this research will be further discussed in the next chapter.

Chapter 9

CHAPTER 9 : CONCLUSION

9.1 Introduction

This chapter will provide an overview of the important areas that the research has covered to conclude the thesis. Firstly, the chapter will revisit the research aim and objectives. Subsequently, it will discuss the achievement of each objective of the thesis. Thereafter, it will present the research findings based on the research questions stated in Chapter 1. It will then provide a list of the theoretical and practical contributions of this study before outlining the research limitations and recommendations for future research. Finally, it will delineate the researcher's reflections on the whole research process.

9.2 Meeting the Research Aim and Objective

As stated in Chapter 1, the aim of the thesis is "To explore and understand what shapes and underpins the roles of the actors and structures the institutionalisation of digitally-enabled service transformation as a working practice in public institutions". To enable the attainment of such an aim, a list of objectives was set.

Table 9-1 maps the objectives and the chapters where they were achieved.

Table 9-1: Meeting the Research Objective

(Own Illustration)

Objective and Associated Chapter
Objective 1 → Chapter 2 (Literature Review)
Objective 2 → Chapter 3 (Lessons from the Past Digitally Enabled service Transformation in the UK)
Objective 3 → Chapter 5 (Theoretical Framework)
Objective 4 → Chapter 5 (Research Method)
Objective 5 → Chapter 6 (Case Study)
Objective 6 → Chapter 7 (Findings)
Objective 7 → Chapter 8 (Discussions)
Objective 8 → Chapter 9 (Conclusions)

Objective 1: Investigate the contextual background and influencing factors in large-scale public sector DEST projects, by critically reviewing the existing literature.

This research has performed a detailed critical review of the literature and highlighted the research gap. Chapter 2 outlined the evolution of digitally-enabled service transformation (DEST) in the UK's public sector context during the last three decades and their implementation performance. The findings highlight that the majority of the DEST was unable to be institutionalised. Such derailments were linked to the weaknesses of the institutional practices and technological imperatives. The scarcity of research on such phenomenon based the outcome of the interplays between institutional actors and structures during institutionalisation process signposts a need for study. It was also discovered from the review that there are calls to investigate this phenomenon further. Observing such a need, this research proposed a conceptual framework that highlights the roles of the actors and structures in the institutionalisation process and the impact of their interplay on the institutionalisation of DEST in the public sector.

Objective 2: Recognise how the factors identified in (objective 1) evolve in the real world by conducting an analysis of previous DEST cases in the UK's public institutions to reflect the lessons and emerging themes;

Objective 3: Based on the outcome of objective 2, to identify the potential theoretical lens for exploring the emerging themes in the institutionalisation process of DEST in the UK's public sector.

Chapter 3 of this study presented an institutionalisation framework. The framework was developed based on concepts drawn from Institutional Theory and Structuration Theory. These theories were identified from the results of the thematic analysis conducted on four past DEST cases in the UK's public sector. The chapter presented the importance and relevance of the two theories within the research context.

Objective 4: Interpret the research need and review appropriate research methodologies to formulate the methodological approach to be used in the study.

Chapter 4 presented the methodological approach for this research. It provided a justifications for the chosen research philosophy, approach to theoretical development, inquiry approach, strategy to conduct inquiry, time horizon and research design.

Objective 5: Using the approach identified in objective 4, identify a case of DEST in the UK's public sector to conduct a qualitative empirical enquiry.

Chapter 5 presented the case study chosen for the research enquiry.

Objective 6: Using the conceptual framework identified in objective 3, to conduct a qualitative empirical enquiry in the context identified in objective 4 to explore and understand the roles of actors and structures in the institutionalisation process.

Chapter 6 presented the descriptive findings from the Universal Credit case, as presented in Chapter 5, using the conceptual lens proposed in Chapter 3.

Objective 7: Analyse the empirical data and propose a research framework.

Chapter 7 of this study discussed the findings that were presented in Chapter 6 in light of the previous literature. It was highlighted that other concepts emerged during the interplay between the actors and structures in the process of institutionalising UC, in addition to those highlighted in Chapter 3. As such, the research proposed a new conceptual framework to be investigated further in future research.

Objective 8: Offer practical and theoretical implications of the key findings and provide recommendations for future research.

Chapter 8 concluded the study by revisiting the aim and objective of the study. Thereafter, it presented the theoretical and practical contribution of the proposed conceptual framework. Next, it stated the research limitations and avenue for future work. This chapter ended with a reflection on the whole research process from the researcher's perspective.

9.3 Research Findings

This study proposed a conceptual framework in Chapter 3 based on the literature review in Chapter 2 and the findings of the analysis on four past DEST cases in the UK's public sector. The main focus of such framework is to address the three research questions proposed in

Chapter 1. This framework was used as an analytical lens to study the case of Universal Credit, a DEST programme in the UK's public sector (as presented in Chapter 5). Based on the three research questions, the main findings of this research are as follows:

RQ1: What causes DEST to emerge in public institutions and how?

- a) This research found that DEST emerges in public institutions as the outcome of the external and internal pressures that were directed towards the organisation.
- b) The direction of pressure towards the organisation would destabilise it, due to the rejection of the old institutionalised practices that led to its deinstitutionalisation (i.e. the abandonment of the old practice).
- c) The absence of such practices caused the actors to seek a replacement. Differences in background caused the actors to theorise and suggest many solutions, yet they only needed to commonly agree on one. Such an agreement is obtained by justifying the meaning of the proposed solution, i.e. communicating its significance to the organisational context. Thereafter, the solution is proposed as an organisational innovation (i.e. DEST).

RQ2: What shapes DEST-led practices and their context of use, and how?

- a) Practices are produced through actions that were routinised with the help of regulation enforcement or norms (i.e. structure manipulation).
- b) The introduction of DEST as an innovation entails the creation of new structures, or the modification of the existing ones, that helps to produce the desired actions. In turn, actions re-produce such structures or revise them in order to create new ones. The outcome of these interplays (i.e. actions and structures) informs the shape of DEST-led

practices. Structural and actions modification will continue until the desired form of practices is achieved. Such practices will help to re-stabilise the organisation.

RQ3: How does the process identified in (2) underpin the institutionalisation of DEST-led practices in public institutions?

- a) There are three stages to the institutionalisation process that consist of ‘social’ processes, involving interactions between actors and structures. These interactions are important in ensuring the completion of one stage before the practices can progress to the next stage, and finally become institutionalised.
- b) The social process within the pre-institutionalisation stage is called habitualisation, where the actors draw on an ‘interpretive structure’ to signify the value of the proposed structure post-deinstitutionalisation. The outcome of this stage conditions the movement to the next stage, i.e. semi-institutionalisation. The semi-institutionalisation stage encapsulates the “objectification” process, which requires the actors to enhance the organisational performance by creating and diffusing DEST-led practices in the organisation. To achieve this, the actors draw on the ‘interpretive structure’ to signify the value of the practices available surrounding them, before adopting the proposed structure. The ‘power’ to use organisational resources is required by the authors to encourage the adoption of practices. To obtain these, the actors will manipulate the ‘domination structure’, which allows them to act accordingly; for instance, to govern the actions of others to use the DEST-led practices adopted by the organisation. The outcome of this stage is well-distributed (new) practices. To ensure that the DEST-led practice is widely distributed, the actors will draw on the legitimation structure and change the organisational norms by sanctioning deviated practices. DEST-led practices will be institutionalised once they are embedded as norms and separable from the actors or its context of use.

In conclusion, this research found that actors and structures play important roles in structuring the institutionalisation of DEST-led practices in the public sector. Hence, this research suggests that the government can intensify the structural manipulation (i.e. signifying, empowering, and normalising) to facilitate the institutionalisation of DEST-led practices in public institutions. Theoretical Contributions

The major theoretical contribution of this research is the furthering of Institutional Theory, as it integrates the structure manipulation processes by the actors across series of structuration events in the dynamics of institutionalisation. On top of that, this research has contributed to the e-government and public administration research domains by introducing a comprehensive conceptual framework for understanding the roles of actors and structures in the institutionalisation of DEST in the public sector.

This is done by widening the scope of DEST institutionalisation studies, where greater emphasis was placed on the dynamic of the interplays between actors and structures in both internal and external environmental contexts, rather than narrowing focus on the technology issue. Moreover, the research integrates different processes of institutionalisation, deinstitutionalisation and structuration, in order to provide a broad picture that help to provide richer understanding on the institutionalisation process.

There is an explicit call in the existing literature to study the institutionalisation of DEST in the public sector from the perspective of combined concepts (Bannister and Connolly, 2015, 2014; Baptista, 2009; Baptista et al., 2010; Barley and Tolbert, 1997; Currie, 2011; Heeks and Bailur, 2007; Omar et al., 2016a; Veenstra et al., 2011). Hence, this research used a hybrid of Institutional Theory and Structuration Theory concepts to study the roles of the actors and structures in institutionalizing DEST in the UK's public sector.

Existing studies largely constrain their focus to the antecedents and effects of institutionalisation, using the lens of Institutional Theory. Others have operationalised the institutional concepts as a lens for interpreting and analysing the data. Although the scholars highlighted the importance of understanding the institutional process and its social interplay with the institutional actors and structures, the empirical study remains scarce.

Several studies use the structuration concepts to interpret how technology shapes the behaviour of the organisational actors when faced with institutionalisation. Baptista et al. (2010) offer a comprehensive view of the interplay process. Nonetheless, a huge focus on that has been placed on the component of internal physical environment could have deluded the conceptual underpinning the subtle interactions between the organisational structures of signification, domination and legitimation. Furthermore, the study used a single theory for its conceptual lens and only one strategy for the data collection (i.e. interviews), despite being conducted longitudinally.

This research combined concepts from two theories (i.e. Institutional Theory and Structuration Theory) to form the conceptual lens for analysis. This combination gives the researcher a better understanding of the process of action and structure formation, which conditions the outcome of each institutionalisation process stage.

Another important contribution is the integration of Structuration Theory from the sociology field into the IS field, that had widened the public sector's DEST institutionalisation debate. As DEST implementation is inseparable from social activities and these activities occur in both contexts (Pishdad et al., 2012), this research considered both the external organisational level (i.e. the institution) and the internal organisational level (i.e. the organisation) as the DEST contexts. Furthermore, Zucker (1988) emphasised that the inter-relatedness of both contexts regarding the institutionalisation outcome strengthened this decision.

The three stages of the Institutionalisation Model (Tolbert and Zucker, 1996) depict the processes of institutionalisation, i.e. habitualisation, objectification, and sedimentation. This research found that exploring these stages through the structuration perspective produced a better understanding of the implications of the social interplay between the actors and structures at each stage and how they contributed to the growth of the outcomes at each stage. In doing so, the research has supported the previous argument by Tolbert and Zucker (1996), while at the same time showing that this concept is highly abstract in nature. This is similar to the duality of structures concept proposed by Giddens (1984) in Structuration Theory. As such, this research suggested that these concepts are meaningful and could be better understood if combined, rather than being treated separately.

9.4 Empirical Contributions

This research has made a contribution to the body of literature by empirically exploring the roles of the structures and actors in institutionalising DEST in the UK's public sector through undertaking a longitudinal study on the Universal Credit Programme case. In this respect, the use of multi-sources of evidence gained from a combination of qualitative inquiry strategies (i.e. interviews, focus groups, and secondary data – written and audio visual) provide a better triangulation of the findings and improve the rigorousness of research (Yin, 2018).

9.5 Practical Contributions

In practice, the research will offer the actors, especially the policy-makers and the organisational leaders, a frame of reference for understanding the importance of the actors-structures interplay on the success of DEST institutionalisation in the public sector. It provides insights into the significance of structure manipulation in producing the desired practices that can facilitate the institutionalisation of DEST in the public sector.

Another important contribution is that the research also offers practitioners and the research community useful lessons based on its findings and a framework for developing and implementing strategy to facilitate the institutionalisation of DEST, by expanding the thinking beyond the traditional IS framework. For DEST to be institutionalised, the technological implementation cannot be treated as separate from the social actions (Zucker, 1988), because an institution is a product of social interplays (Tolbert and Zucker, 1996) and such interplays require time to normalise certain practices in a social context (Giddens, 1984).

This research has shown that it is very important for the internal and external actors to maintain their engagement since this will result in the formation of homogenised values among the actors, which underpin their subsequent actions. Additionally, the actors should be empowered with significant resources to help them to shape practices as desired by the policy-makers. Meanwhile, sanctioning undesirable practices would facilitate the shaping of a new norm that helps to legitimate the new practices.

9.6 Research Limitations

There are some limitations in this research. Since Universal Credit is not fully rolled out - the research explored its institutionalisation process based on the roles of the government actors (i.e. the actors from government organisations) and disregarded the roles of the users (i.e. the citizens).

Besides, the researcher had encountered two main challenges related to the coding of the evidence, which are, hypothetically, research limitations. First, in the context of a duality of structure, what constituted the actors and structures had to be pre-determined. Therefore, the research treated the principles prescribed by the actors in their minds as 'structures', while the actors' act in externalising the structure as an 'action'. For instance, when the PAC

criticised the culture of the DWP, the DWP was expected to modify their legitimisation structure. Here, the structure refers to the 'DWP's culture', while action refers to the 'PAC's act of criticising'. Second, despite the abstraction, the structural modes must be mapped against its dimensions. Therefore, "A Sequential Model of Institutionalisation" (Barley and Tolbert, 1997) was used as a guide for explaining how the actors and structures were recursively shaped over time. Against the background of this context, the researcher's interpretation of such events became the main instrument, which no doubt led to limitations and risks. Therefore, future research may redefine a different approach in doing this.

Despite of these limitations, this research provided significant empirical evidence on the roles of the actors and structures in the institutionalisation of DEST in the UK's public sector.

9.7 Future Research

Based on the limitations, the following recommendations are proposed for future research:

- a) Against the background of the semi-institutionalisation stage, in the case, it was evident that the actors-structures' active engagement contributed to the production of desirable practices within UC institutionalisation. Based on the concept of Institutional Work (Lawrence and Suddaby, 2006), such engagement is observable in the three distinct forms of creating, maintaining or disrupting structure. Theoretically, these engagements could happen concurrently in an unstable context. Each of them would implicate practice differently and employed a different strategy to help to institutionalise the new practice. These perspectives might be employed in future study to explore further their implications regarding DEST institutionalisation in the public sector context.
- b) Since this research focused on the government actors, future research should consider exploring the roles of the citizens in institutionalising DEST in the public sector.

- c) This research conducted empirical study on the Universal Credit case within the UK's public institution. UK is the most advanced country with regard to e-government implementation (UN, 2016). Hypothetically, this factor and the UK's political climate affected the values and norms of the UK's public institution. Hence, future research should consider a different context in order to explore this concept and develop a better understanding of it.
- d) Another way of viewing the structuration of DEST institutionalisation is by using the ethnography research approach. Focusing on the cultural aspect of an institution, the study potentially elicits new lessons that case study research was unable to discover and understand. The advancement of internet technology could help in this context, as it might enable researchers to conduct online ethnography, i.e. netnography.

9.8 Reflection on Completing the Research

“Life is lived forward but understood backwards” - Weick (2002)

Reflection is “...the action of a subject towards an object...” (subject – object), involving evaluation of appropriateness to re-generate certain social conventions by weighing its potential implications, despite of the fact that sometimes such convention is unavoidable (Archer, 2010, pp2).

9.8.1 Research Process

The research questions that were answered in this thesis were framed after a great deal of debates, researching, investigation and discourses with both the academia and practitioners.

Arguably, an investigation on recent issues available in the public domain would enable the outlining of the question. Nonetheless, the researcher strongly believe that the call should be

answered through a longitudinal studies – since the institutionalisation of DEST is a process involving the recursive interactions between actors-structures in the backdrop of social world, which race against time. The availability of digital archive in the public sphere had opened up the potentials of mining fresh, untapped and rich data that probably brings new information to what was already known.

Creswell (1998) claims that the qualitative researcher conducted data analysis in spiral. Hence, the process of data analysis and pattern of thinking that was adopted by the researcher is iterative – i.e. where the questions asked, the data gained and the themes emerged formed an evolving process of becoming sensitised to the research situation and what the researcher found incredibly interesting.

Qualitative research is an abstract practice. As argued by Darke and Shanks (2000), the researcher brought to the data collection, the analysis and the report writing some of her own works. The researcher started the research with certain biases and preconceptions in the form of beliefs, knowledge, experiences, values and prior assumptions. With those, the researcher defines both spatially and temporally the domain they wish to explore, bracketing it using some preconceived scheme, gathering data which are then read and interpreted by the researcher (Van Maanen, 1983). Hence the initial conceptual framework developed at the early stage of this research differs quite significantly with the conceptual framework proposed as the main finding at the final stage of this research. Nonetheless, as the research process continues, these pre-existing conditions slowly fade with the help of constant reminder to be focus, alert and sensitive to the suggestions of the evidence and reality of the world.

9.8.2 Personal Aspect

The researcher's personal reflection on completing this research was divided into three: (i) The development of secondary research skills; (ii) The development of primary research skills; (iii) The improvement of time-management skills; and (iv) The increment of self-confidence level.

9.8.2.1 *The Development of Secondary Research Skills*

Prior to this research, the author had acquired some fundamental secondary research skills that enable her engagement in this research. Nevertheless, those skills have tremendously improved as a subliminal impact of conducting the current study. The context of this research revolves within the concept of digital age, entailing the rapid technological evolution that contributes towards the modernization of information and communication processes. These processes, which subsequently generates significance amount of random and widely available information have become the one of the prominent forces driving institutional and social evolution, which occurs through series of social events over certain period of time. Such extremely vast information was also termed as 'big data' and often described as the enormous sets of data that potentially reveals particular meanings, post analysis.

As the social events are highly subtle, the social evolutionary processes often took place unconsciously – i.e. the processes are greatly embedded in daily activities that gradually become habit and norms. Predominantly, they were only realized after the effects or outcomes were experienced. Practically, the there are potentials for these processes to be planned, organized and controlled, in order to deliver the desired outcomes or form required shape of institution and society – i.e. through optimal utilization of random, widely available information or the big data. Dealing with data of such scale from such perspective demands robust secondary research skills. Therefore, the researcher's capability to mine, utilize and

interpret the data in align with this research has evidently supported that a noteworthy quality of secondary research skills was gained throughout the course of conducting this research. In specific the skills have advanced in two spectrums of data filtration or prioritization, and data synthesis.

The explosion of data has limits the possibility to analyze all available data in answering the research problem, which lead to the data quality and usage issues that impedes its usability to generate meaningful purposes. Nevertheless, compromising the data quality despite of sound methodological approach in research potentially leads to illegitimate findings or conclusions. Hence, the researcher has to strike a balance by learning to filter and prioritize the secondary data according to the pre-determined parameters (e.g. author's credentials, material credibility, and period of publications) particularly during the two critical processes of literature review and data collections. Besides resulting into time-saving, such skills had also contributed towards enhancing the validity of the research findings.

In terms of developing a critical mindset, this research has continuously and substantially gauged the researcher's ability in synthesizing the acquired data. For instance, since it was categorized as a longitudinal-study, the researcher was required to synthesis the relevant data within a period of more than 5 years (i.e. 2000-2016). Despite of ability to bring rich insights, such highly-constructed data complicates the analysis process. To enable the synthesis, the events firstly need to be detangled and then analyzed based on certain pattern (i.e. anachronous – chronological - explanations or re-counts) of different perspective, such as different actors at different stages of processes.

Prior to engaging with this research, it has to be acknowledged that the researcher prone to accept most of the viewpoints of others (e.g. authors of books, journals, etc.) passively (i.e. without an attempt to critically evaluate such views) with regard that the authors who had published have deeper knowledge in the issues discussed. Nevertheless, such paradox was

transformed through this research experience – where identifying streams of academic-related flaws in publications is no longer a challenge. In future, this mindset will potentially identify limitations associated with secondary data, thus provides inputs to improve its contents.

9.8.2.2 *The Development of Primary Research Skills*

The acquiring of invaluable primary research skills is a process that happens throughout the course of this research. The research, which involves the collection and analysis of data of such scale by an individual researcher is unprecedented experience. The most popular qualitative research methods (i.e. data collection strategies) have been learned during the study, where the author had field-experience of conducting interviews and facilitating focus groups. Although such strategies were implemented to gather primary evidences, the researcher has performed an analysis on the capabilities of each strategy in capturing data for this research, enabling her to secure an in-depth knowledge about these methods.

The researcher's engagement in primary data collection and analysis, as well as presenting the part-findings in conferences or journals has made the biggest contribution to her development as a researcher and scholar. Nevertheless, these efforts were underpinned by the positive role and undivided support of the research supervisor, who also frequently offered valuable and practical advises to deal with the issues that arose at different stages of the research, particularly in the data collection and analysis issues.

In today's highly complex, fast evolving environment of both public sector and academia, the importance of having skills and knowledge to conduct research in similar field is greater than ever before. Thus, by having such knowledge and skills - the author is able to provide practical and theoretical insights through acquiring valuable primary information, which potentially useful to inform assistance, interventions or pre-emptive strategy formulation.

9.8.2.3 *Improvement of Time-Management Skills*

This research had also taught the researcher a better time management skill, through an extensive preparation and tactful planning of each stage of the study. Despite of some challenge in refining the scope of research during the first quarter of the first year that impede the literature review process and the final year that impede the writing-up process, the researcher was then able to ensure that the study progress according to the timetable. The issue has been dealt with through re-adjusting the time-plan for the study, as well as, increasing the level of personal discipline in terms of following set plan – such as avoiding all the unnecessary activities and re-planning of daily events, to ensure that a significant time was allocated for the study every day. Nevertheless, such re-adjustment accommodates the provisions for occasional days off study, to avoid stress and burnout that could risk the study. In the end of this process, the researcher's time-management skills that entails abundance of both personal and professional benefits was successfully advanced.

9.8.2.4 *Increasing the Level of Self-Confidence*

The researcher's self-confidence was noticeably enhanced due to the journey encountered throughout the research. Such feeling was obtained by overcoming insecurity of being somewhere and doing somewhat new, and communicating with primary data sources (i.e. interviewees, members of the focus groups, colleagues and conference / seminar participants) in a confident manner. Although the researcher was in doubt about conducting interviews and focus groups for data collection as they will require approaching unfamiliar people, the feeling was finally diminished after the hard-preparations and the encouragement given by tutor, colleagues and relatives. Moreover, the level of communication skills of the researcher has also been greatly enhanced as a result of being through these processes.

Undoubtedly, the increased level of self-confidence will greatly benefit the researcher as all – an individual, a researcher as well as a professional, which is key to gain to gain visibility and show how situation or problems were tackled positivity and with dignity, in any organization.

9.8.3 Concluding the Reflections

Concluding the reflections' remarks on completing this research (and writing a thesis), it was fair to acknowledge that the overall process was an enjoyable journey. As a person that always eager for new knowledge, learning is the researcher's passion. Public sector domain has always been the researcher's interest, as it was where her career began before blooming through various portfolios in service transformation projects. Departing from such experience, the topic of this thesis is chosen relying on the burning questions that subsequently emerged due to the transformations failure. Although originally there is no intention to study the "digitally-enabled service" as focus of transformation type, after discussing with the supervisory team and spending a few months researching and writing about it, the decision for opting on such focus became justified. As the public sector experience a new wave post New Public Management (NPM) Era – known as Digital Era Governance (DEG), the transformations of public services are heavily ICT-led, resulting into the creation of online channels as an option, or replacement of the existing service delivery channel. Despite of some success stories, most of these efforts have failed to attain its objectives.

Numerous researches were conducted to study the phenomenon, nevertheless, the attempt to highlight the implicit roles of institutional actors and structures and their interplays in facilitating such process remain scarce. As an ex-human resource practitioner, the preconception is – since the transformation of service occurs in a social context where social interactions between human are unavoidable, the actors and structures play important roles in

determining the transformation success, regardless of the digitally-led feature. The step-by-step reflexivity process guide has helped to overcome an extremely challenging process of separating such preconception from the research process itself, thus enhancing the reliability and validity of the data.

Overall, the research process helps the researcher to advance in many areas, especially improving the professional and personal qualities, enriching tacit and implicit knowledge, as well as enhancing cognitive capacity and capability. As the research and writing skills are not only valued in academia world, the researcher shall resume to research and contribute in any potential publications to ensure the continuity and development of her contributions.

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Appendices

Appendix 1: Completed Research Ethics Form

College of Business, Arts and Social Sciences

**ETHICAL MATTERS MUST BE CONSIDERED BEFORE ANY RESEARCH TAKES PLACE
FAILURE TO FOLLOW THE CORRECT ETHICAL PROCEDURES OR CONDUCTING RESEARCH WITHOUT ETHICAL
APPROVAL WHERE IT IS REQUIRED MAY LEAD TO DISCIPLINARY ACTION**

Guidance

This Ethics Checklist has been designed to help determine the level of risk or harm to participants' welfare entailed in a proposed study. It also contains a sample consent form and information leaflet checklist that you can use/adapt as appropriate.

NB: If your research requires NHS ethics approval, you should not complete this form. Please provide the College with a copy of your letter of NHS approval once you receive this.

Who Completes the Checklist?

The Principal Investigator (PI) is the main researcher and can be a student. The PI (or where the PI is a student, the supervisor) is responsible for exercising appropriate professional judgement in this review.

Underpinning Codes of Ethics

Before completing this checklist, you must refer to the University [Code of Research Ethics](#) as well as the relevant code of ethics for your discipline. These are listed in the Useful Links section at the end of this guidance. It is your responsibility to follow these Codes of Research Ethics in the conduct of your study. This includes providing appropriate documentation and ensuring confidentiality in the storage and use of data (see section 3.3.2 of the University Code of Research Ethics).

The Checklist

This Checklist is in two parts:

Part 1: This must be completed by all students and staff undertaking research. This section aims to confirm that there are no ethical or risk assessment issues related to your research.

Part 2: This is for all Principal Investigators who identify that there are ethical and/or risk assessment issues in their proposed research.

YOU MUST HAVE YOUR APPLICATION, CONSENT FORM AND INFORMATION SHEET APPROVED BY YOUR DEPARTMENTAL ETHICS COORDINATOR BEFORE YOU START YOUR RESEARCH AND APPROACH POTENTIAL PARTICIPANTS.

What do I have to do if I need to complete the University Research Ethics Committee Application Form?

You will need to complete and submit this via BBL. The College will be able to review and approve the ethics form. If the research needs University level approval, your form will be referred to the University Research Ethics Committee by the College Research Office.

Risk Assessment

All Principal Investigators (and their supervisor where relevant) are required to consider matters of risk and conduct a risk assessment as part of the University's Health and Safety Policy. If issues of risk are identified, a risk assessment is required and must be attached to this form.

Disclosure and Barring Service (formerly Criminal Record Bureau) Checks

If your research involves vulnerable persons, you are required to follow University guidelines for Disclosure and Barring Service (DBS) checks. If you need a DBS check please contact the DBS Administrator in Admissions who will send you the information you need to make a DBS application.

**How to submit Checklist and appendices on Blackboard Learn:
(A visual guide is available in the guidance documents folder of your Departmental Ethics Organisation)**

- Stage 1: Log into BBL
- Stage 2: Click on your department's Research Ethics Organisation, under the My Organisations list on the right hand side
- Stage 3: Download the Ethics Checklist from the folder on the homepage titled 'Research Ethics Application Form'.
- Stage 4: Complete the form and save it to your hard drive.
- Stage 5: (Students only) Send the form to your supervisor to complete their section and return it back to you.
- Stage 6: Click on the Ethics Checklist Submission Assignment Tool. Upload your Ethics Checklist and appendices eg consent form, information leaflet, using the Browse My Computer link, and ensure you have uploaded the correct documents
- Stage 6: Once you have confirmed they are the correct documents, click submit
- Stage 7: Click on the My Grades link in the Departmental Ethics Organisation to find the outcome and feedback once it has been reviewed by your Departmental Ethics Coordinator.

Further information about how to submit is available in the Departmental Ethics Organisation, under My Organisations, in BBL.

What happens after I have received ethical approval?

Once you have received ethical approval, you can start your research.

Students are required to retain a copy of the approved Checklist, consent form and information leaflet and submit these with their research report/dissertation/thesis.

All undergraduate and postgraduate work submitted/conducted without ethical approval may be subject to academic penalties and disciplinary action.

If your research is delayed and will extend beyond the dates stated on your form, please contact your Departmental Ethics Coordinator to seek approval for an extension.

Useful Links, Resources and Coordinators

University Research Code of Ethics [LINK](#)

UREC website - [LINK](#)

Department	Code of Ethics	Coordinator
Arts and Humanities	University	Philip Tew
Brunel Business School	University	Dr Natasha Slutskaya
Education	University	Anne Chappell Prof Mike Watts
Economics and Finance	University	Prof Guglielmo-Maria Caporale
Politics, History and the Brunel Law School	University	P&H – Dr Myron Varouhakis Law – Prof Javaid Rehman
Social Sciences, Media and Communications	Sociology & Communications LINK Anthropology LINK Media	Sociology & Comms – Dr Simon Weaver Anthropology – Isak Niehaus Games Design – Kelly Boudreau FTV Studies – Dr David Ingram Journalism – Paul Lashmar

CBASS Research Ethics Review Checklist – Part 1

Section I: Project details

1. Project title: Digital-Enabled Service Transformation in the UK Public Sector: Exploratory Study of Structuration and Institutionalisation Process of Change	
2. Proposed start date: 01/01/2014	3. Proposed end date: 31/12/2017

Section II: Applicant details

4. Name of researcher (applicant)	Amizan Mohamed Omar
5. Student Number	1329511
6. Status	PGR Student
7. Department	Brunel Business School
8. Brunel e-mail address	Amizan.mohamedomar@brunel.ac.uk
9. Telephone number	07436869243

Section III: For students only

10. Module name and number:	Ph.D thesis
11. Supervisor's name:	Prof. Vishanth Weerakkody & Dr Ramzi El-Haddadeh
12. Brunel supervisor's e-mail address:	1) Vishanth.weerakkody@brunel.ac.uk 2) Ramzi.el-haddadeh@brunel.ac.uk

	Yes	No
13. Does this research involve human participants?	<input checked="" type="radio"/>	<input type="radio"/>
14. Does this research raise any ethical or risk concerns as set out in the University Code of Research Ethics or relevant disciplinary code?	<input type="radio"/>	<input checked="" type="radio"/>
15. Risk Assessment – are there any elements of risk related to the proposed research? (See Risk Assessment – FAQs)	<input type="radio"/>	<input checked="" type="radio"/>

If you have answered **Yes** to any of questions 13-15, you must **complete Part 2** of this form.

Students: If you have answered No, please email this document to your supervisor who will confirm that the research does not involve ethical issues. Once electronically signed by your supervisor, please submit Part 1 of this form via BBL within 1 week. Please keep a copy for yourself and bind it into your dissertation/thesis as an appendix.

Staff: If you have answered No, please sign below and submit your form via BBL. Please keep a copy for yourself.

If your research methodology changes significantly, you must submit a new form.

For Supervisor's/Staff e- signature

I confirm that there are no ethical or risk issues relating to this research and the applicant can proceed with the proposed research.
e-signature/ Date: V Weerakkody / 8.6.15

CBASS Research Ethics Review Checklist – Part 2

Section IV: Description of project

Please provide a short description of your project:

This research is a part-fulfilment of PhD degree at Brunel Business School, where the aim is to improve knowledge on how digital-enabled service transformation (DEST) in public sector is shaped and shapes its organizational context of use, and how the interplays between organizational actors and structures then underpins the institutionalization of the DEST in the working practices of public institutions. It is important as statistically, many large-scale digital-enabled projects in the public sector continue to fail to realize set objectives which have resulted in a deterioration of public confidence towards public sector competency in managing and implementing such projects. This study will contribute towards the body of knowledge and provide a frame of reference for practitioners involved in DEST projects.

Section V: Research checklist

Please answer each question by ticking the appropriate box:

	YES	NO
1. Does the project involve participants who are particularly vulnerable or unable to give informed consent (e.g. children/ young people under 18, people with learning disabilities, your own students)?	<input type="radio"/>	<input checked="" type="radio"/>
2. Will the research involve people who could be deemed in any way to be vulnerable by virtue of their status within particular institutional settings (e.g., students at school, residents of nursing home, prison or other institution where individuals cannot come and go freely)?	<input type="radio"/>	<input checked="" type="radio"/>
3. Will it be necessary for participants to take part in the study without their knowledge and consent (e.g., covert observation of people in non-public places)?	<input type="radio"/>	<input checked="" type="radio"/>
4. Will the study involve discussion of sensitive topics (e.g., sexual activity, drug use) where participants have not given prior consent to this?	<input type="radio"/>	<input checked="" type="radio"/>
5. Will the study involve work with participants engaged in breaking the law?	<input type="radio"/>	<input checked="" type="radio"/>
6. Will the publications/reports resulting from the study identify participants by name or in any other way that may identify them, bring them to the attention of the authorities, or any other persons, group or faction?	<input type="radio"/>	<input checked="" type="radio"/>
7. Are drugs, placebos or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?	<input type="radio"/>	<input checked="" type="radio"/>
8. Will the study involve the use of human tissue or other human biological material?	<input type="radio"/>	<input checked="" type="radio"/>
9. Will blood or tissue samples be obtained from participants?	<input type="radio"/>	<input checked="" type="radio"/>
10. Is pain or more than mild discomfort likely to result from the study?	<input type="radio"/>	<input checked="" type="radio"/>
11. Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?	<input type="radio"/>	<input checked="" type="radio"/>
12. Will the study involve prolonged or repetitive testing?	<input type="radio"/>	<input checked="" type="radio"/>
13. Will financial inducements (other than reasonable expenses and compensation for time) be offered to participants?	<input type="radio"/>	<input checked="" type="radio"/>

	YES	NO
14. Will the study require the co-operation of another individual/ organisation for initial access to the groups or individuals to be recruited? If yes please attach the letters of permission from them.	<input type="radio"/>	<input checked="" type="radio"/>
15. Will you be undertaking this research as part of a work placement or in conjunction with an external organisation? If Yes and the organisation has conducted its own research ethics review, please attach the ethical approval.	<input type="radio"/>	<input checked="" type="radio"/>

If you have answered 'yes' to any of questions 1-13, you will need to complete the University [Application Form for Research Ethics Approval](#).

Students: If you have answered 'No' to all of questions 1-13, please **sign below and submit this completed Checklist, consent form, information leaflet and any other documents and attachments for your supervisor's approval by email . Once you have received it back from your supervisor you will be able to submit via BBL. Forms that do not have your supervisor's approval will be rejected.**

Staff: If you have answered 'No' to all of questions 1-13, please **sign below and submit this completed Checklist, consent form, information sheet and any other documents and attachments via BBL.**

Please note that it is your responsibility to follow the University's Code of Research Ethics and any relevant academic or professional guidelines in the conduct of your study. **This includes providing appropriate information sheets and consent forms, and ensuring confidentiality in the storage and use of data.** Any significant change in protocol over the course of the research should be notified to the Departmental Ethics Coordinator and may require a new application for ethics approval.

Applicant (Principal Investigator) Name: Amizan Mohamed Omar
Applicant's e-signature: AMO
Date: 04/06/2015

Supervisor Section (for students only)

Please tick the appropriate boxes. The study should not be submitted until all boxes are ticked:

<input checked="" type="checkbox"/>	The student has read the University's Code of Research Ethics
<input checked="" type="checkbox"/>	The topic merits further research
<input checked="" type="checkbox"/>	The student has the skills to carry out the research
<input checked="" type="checkbox"/>	The consent form is appropriate
<input checked="" type="checkbox"/>	The participant information leaflet is appropriate
<input checked="" type="checkbox"/>	The procedures for recruitment and obtaining informed consent are appropriate
<input checked="" type="checkbox"/>	An initial risk assessment has been completed
<input checked="" type="checkbox"/>	If there are issues of risk in the research, a full risk assessment has been undertaken and a risk assessment is attached.
<input checked="" type="checkbox"/>	A DBS check has been obtained (where appropriate)

Any comments from supervisor:

--

Supervisor or module leader (where appropriate):

E-signature: V Weerakkody

Date: 8.6.15

Supervisors: Please **email** this form to the student who will then need to submit it and related appendices via BBL.

Student: Once you have received this form back from your supervisor, submit this completed Checklist, consent form, information sheet and any other documents and attachments via BBL.

Departmental/Division Ethics Coordinator section:

This request for expedited review has been:	<input checked="" type="checkbox"/> Approved (No additional ethics form is necessary)
	<input type="checkbox"/> Declined (Full University Ethics Form is necessary)
	<input type="checkbox"/> Declined (Please give reason below)

Departmental Ethics Coordinator Name: N.Slutskaya

E- signature N.Slutskaya

Date: 10.06.2015

Appendix 1

CONSENT FORM (TO BE COMPLETED BY PARTICIPANT)

The participant should answer every question

	YES	NO
1. I have read the Research Participant Information Sheet.	<input type="checkbox"/>	<input type="checkbox"/>
2. I have had an opportunity to ask questions and discuss this study.	<input type="checkbox"/>	<input type="checkbox"/>
3. I understand that I am free to withdraw from the study:		
- at any time (Please note that you will be unable to withdraw once your data has been included in any reports, publications etc.)	<input type="checkbox"/>	<input type="checkbox"/>
- without having to give a reason for withdrawing	<input type="checkbox"/>	<input type="checkbox"/>
- without it affecting my future career or employment	<input type="checkbox"/>	<input type="checkbox"/>
4. I agree to my interview being recorded	<input type="checkbox"/>	<input type="checkbox"/>
5. I understand that I will not be referred to by name in any report/publications resulting from this study	<input type="checkbox"/>	<input type="checkbox"/>
6. I agree that my comments can be quoted as long as they do not directly identify me when the study is written up or published	<input type="checkbox"/>	<input type="checkbox"/>
7. I agree to take part in this study	<input type="checkbox"/>	<input type="checkbox"/>

Research Participant Name:
Research Participant signature:
Date:

Principal Investigator name: Amizan Mohamed Omar
Principal Investigator signature:
Date:

One copy to be kept by the participant and one by the researcher

Appendix 2

PARTICIPANT INFORMATION LEAFLET

Study title: Digital-Enabled Service Transformation in the UK Public Sector: Exploratory Study of Structuration and Institutionalisation Process of Change

Invitation Paragraph

The failure of several large scale ICT-led projects in the UK public sector has already generated much media attention and debate among the research community. A preliminary analysis was conducted on few projects to delineate the lessons that can be drawn. Findings of this analysis showed that the actors and structures played significant roles in the institutionalisation process of DEST. The actors shaped structures through the act of reinforcing or modifying existing rules, and in return, the structures shaped behaviour by governing the actions. The interplays between actors and structures continued to happen until a definite pattern of behaviour and rules was embedded and accepted in the organisation, as part of the organisation functions. However, further empirical evidence is needed to verify these arguments. Therefore, this interview is meant to clarify the involvement of actors in each phase of DEST projects and explore the formation of structures that facilitate or impede the DEST institutionalisation process. This research is important as statistically, many large-scale digital-enabled projects in public sector continue to fail to realize set objectives which have resulted in a deterioration of public confidence towards public sector competency in managing and implementing such projects. Thus, besides contributing towards the body of knowledge, this research will provide a frame of reference for practitioners involved in large scale ICT-led service transformation projects to draw from.

What is the purpose of the study?

This research is a part-fulfilment of PhD degree at Brunel Business School, where the aim is to improve knowledge on how digital-enabled service transformation (DEST) in public sector is shaped and shapes its organizational context of use, and how the interplays between organizational actors and structures then underpins the institutionalization of the DEST in the working practices of public institutions. The research is important as statistically, many large-scale digital-enabled projects in the public sector continue to fail to realize set objectives which have resulted in a deterioration of public confidence towards public sector competency in managing and implementing such projects. This study will contribute towards the body of knowledge and provide a frame of reference for practitioners involved in DEST projects.

Why have I been invited to participate?

You have been invited to take part in this interview as part of a qualitative research methodology approach that would be applied to achieve the study's aim. Interviewees would be asked questions on the elements influencing institutionalization of digital-enabled service transformation in public sector, and the underlying process in relation DEST. To ensure the gathering of relevant empirical data, you are invited to take part in the study due to your role, involvement, experience and knowledge pertaining to the research subject.

Do I have to take part?

Participation in the study is voluntary. Participants have the options to withdraw from the interview before the session starts (even if they have initially agreed to participate) or during the session.

What will happen to me if I take part?

Respondents' identity will be kept as strictly confidential throughout the study, any written publications and thesis publication. Any quoted citations that would appear in the thesis or related publications will remain anonymous.

What do I have to do?

Participant would be required to provide feedback on several questions during an approximately 2 hour's interview.

What will happen to the results of the research study?

The findings from this interview will be used to refine a research framework that will be formulated for analysing Digital-Enabled Service Transformation project, and will appear in the thesis and research papers.

Who is organising and funding the research?

This study is funded by the Majlis Amanah Rakyat (MARA), Malaysia as part of ongoing PhD research in Brunel University London, United Kingdom

Contact for further information

Prof. Vishanth Weerakkody
Professor of Digital Governance
Brunel Business School, Brunel University London, UB8 3PH United Kingdom
Email: vishanth.weerakkody@brunel.ac.uk
Tel: +44 (0)1895 266020

Appendix 2: Interview Questions

Theme: Institutional fields and logics

- [1] Please briefly describe about the organisation function and history.
- [2] Can you elaborate the organisation's vision, mission and ultimate objective?
- [3] In your opinion, will the introduction of the DEST in this organisation help the organisation to achieve the desired vision / mission and objective? Please explain your answer.
- [4] Who are the main shareholders and stakeholders of this organisation? Please elaborate on their relationship with this organisation.
- [5] To whom is the organisation accountable to besides the stakeholders (NGO)?
- [6] What is your organisation's priority? i.e.: public value or organisation value
- [7] Does your job role and associated priorities align with the organisation's priority?
- [8] Is there any code of practice or code of conduct that govern the employees of this organisation and from where do they originate?
- [9] How would you describe the involvement of 'suppliers / vendors / consultant' in the organisation's affair (i.e. : very intense / intense /loose involvement in decision making, policy making or organisation's operations)?
- [10] How does the organisation produce and deliver its services to the customers (backward / forward integration)?

Theme: Institutional actors and Roles

- [1] What is your roles and responsibility towards this organisation and where do you put your responsibility in the DEST project fittings?
- [2] How many departments does the organisation have and what are the roles and responsibility of each department? – Is there any publicly available document that I can refer to obtain this information?
- [3] Do you agree if the employees in this organisation are functionally divided and not hierarchically? Please explain observation.
- [4] Which department is directly involved with this project and who are the people that are directly responsible for this transformation program?
- [5] Does the BoD in this organisation act as directors in other organisation as well? If yes, please briefly explain the context and function of the organisation(s).
- [6] Please briefly explain about the decision making and policy-making process in the organisation.

Theme: Organisational structures (formal and informal)

- [1] In respect to the execution of DEST: from the decision making, system design, policy making, implementation and monitoring – do you think that the program engaged all relevant parties at each level to ensure its success?
- [2] Please elaborate about the communications received in regards to the DEST implementation, by dividing it into 2 stages: Pre-implementation and amid-implementation.
- [3] Was it happened as two ways communication or one way top-to-bottom communication? If it is one way, how do you address your concerns about the issue and how was it being resolved?
- [4] Observing any shortfall(s) of the current DEST implementation, what would you suggest to make things better?
- [5] To what extend are the employees' engagement in the organisational decision making process?
- [6] Is the organisational structure flat structure, tall, structure, many layers, reduced layers of reporting line and who resides each level of that structure? Briefly explain.
- [7] Can you recall the existence of any informal or ad-hoc structure (e.g. special task force, think tank, etc) within the organisation that helps the execution of any transformation initiative? If such structure exists, can you please explain about their role and who are their members?
- [8] Can you please describe the decision making process in this organisation – i.e. who are the decision makers for this organisation and what are their scope of responsibility and accountability?
- [9] How do the employees put across their opinion about the transformation initiatives which is taking place in the organisation?

Theme: Factors influencing pressures and Types of pressures

- [1] Can you describe the scenario in this organisation or its surrounding before the implementation of DEST?
- [2] Referring to your answer, why do you think DEST should be or should NOT be implemented in your organisation?
- [3] How do you see the changes in socio-economic context incrementally affecting the organisation? Please name relevant examples to justify your opinion.
- [4] How do you see the changes in technology context incrementally affecting the organisation? Please name relevant examples to justify your opinion.
- [5] How do you see the changes in the country's political landscape incrementally affecting the organisation? Please name relevant examples to justify your opinion.
- [6] How do you see the changes in the organisational leadership incrementally affecting the organisation? Please name relevant examples to justify your opinion.

- [7] Reflecting on your role in this organisation, how do you think an individual's interest and capacity could affect the organisation function, in particular the implementation of DEST?
- [8] Is there any professional body governing this organisation? If yes, please name it and explain their roles towards this organisation.
- [9] Does this organisation have its own regulatory framework or does it abide by the common government legalities.

Theme: Signification process: inter-organisation monitoring

- [1] From your point of view, what are the perceived benefits of the DEST implementation towards the organisation?
- [2] What are the perceived benefits of the DEST implementation towards the stakeholders i.e.: government and public?
- [3] Please share your personal thoughts, whether you think that the implementation of DEST is the best solution to improve the organisation's performance? Please clarify your answer.
- [4] Can you ascertain that prior to the implementation of the DEST in the organisation, the decision makers looked for best DEST practices in other places in order to propose the best solution? If yes, please describe the process. If no, what is the justification and what do you think should be done differently?

Theme: Signification process: Theorisation

- [1] Can you describe the situation when the DEST was first introduced to your organisation - How was the process like, what are the reactions, who controls the situation and how it was done?
- [2] Please share your key challenges during the DEST implementation in terms of mitigating employees' reaction (including your own) and how do you overcome the situation.
- [3] Please share your key challenges during the DEST implementation in terms of utilising and / or changing organisation's structure and resources, and how do you overcome the situation.
- [4] Please share your key challenges during the DEST implementation in terms of supporting and constraining policies or procedures, and how do you overcome the situation.
- [5] Describe how do the responsible party overcome those three situations?

Theme: Signification process: Typification of actions - expected / unexpected response

- [1] Were employees resisted the change and why do you think this has happened? What was the counter-action done by the relevant parties to handle the situation? If not, what do you think had prevented the situation from happening?
- [2] What are the emerging procedures i.e.: new policies / rules / formal guidelines and engagement (including training and briefing) constructed by relevant parties to support the DEST implementation.

Theme: Domination process: Self-monitoring And Domination process: Benchmarking

- [3] Have you put in any effort to monitor the performance of DEST implementation?
- [4] What are the practices adopted for benchmarking purpose and who conducted the process?
- [5] What are the corrective mechanisms imposed on derailed / failing actions detected in the monitoring stage?

Theme: Legitimation: Improving Competitiveness

- [1] What are the actions taken to instil good practices?
- [2] How were / are resources utilised to enhance competitiveness through DEST implementation?

Appendix 3: Consent Form

CONSENT FORM (TO BE COMPLETED BY PARTICIPANT)

The participant should answer every question

	YES	NO
1. I have read the Research Participant Information Sheet.	<input type="checkbox"/>	<input type="checkbox"/>
2. I have had an opportunity to ask questions and discuss this study.	<input type="checkbox"/>	<input type="checkbox"/>
3. I understand that I am free to withdraw from the study:		
- at any time (Please note that you will be unable to withdraw once your data has been included in any reports, publications etc.)	<input type="checkbox"/>	<input type="checkbox"/>
- without having to give a reason for withdrawing	<input type="checkbox"/>	<input type="checkbox"/>
- without it affecting my future career or employment	<input type="checkbox"/>	<input type="checkbox"/>
4. I agree to my interview being recorded	<input type="checkbox"/>	<input type="checkbox"/>
5. I understand that I will not be referred to by name in any report/publications resulting from this study	<input type="checkbox"/>	<input type="checkbox"/>
6. I agree that my comments can be quoted as long as they do not directly identify me when the study is written up or published	<input type="checkbox"/>	<input type="checkbox"/>
7. I agree to take part in this study	<input type="checkbox"/>	<input type="checkbox"/>

Research Participant Name:
Research Participant signature:
Date:

Principal Investigator name:
Principal Investigator signature:
Date:

One copy to be kept by the participant and one by the researcher

Appendix 4 : Actors Involved In Universal Credit Institutionalisation

Actors	Roles
DWP	<ul style="list-style-type: none"> • A government body that is responsible for employment and welfare policies. • The owner of UC. (House of Commons, 2011)
HMRC	<ul style="list-style-type: none"> • Share the Pay As You Earn (PAYE) real-time data with the DWP to enable the Real Time Information (RTI) processing of UC monthly payment adjustment (see Figure 9) (Revenue Benefits, 2017).
Local Government	<ul style="list-style-type: none"> • Delivers the UC programme. • To co-joint other organisations in educating the claimants.
LGA	<ul style="list-style-type: none"> • Influences the government on the UC issues that matter to councils. • Provides a platform for the local authorities to communicate and suggest best practices for UC.
LGDC	<ul style="list-style-type: none"> • Develops the key messages on UC service transformation from the perspective of the LAs. (LGDC, 2015)
Job Centre	<ul style="list-style-type: none"> • Helps people of working age to find work by providing related resources. • Administers UC claims (i.e. Income Support, Incapacity Benefit, and Job Seeker's Allowance).
GDS	<ul style="list-style-type: none"> • Transforms the provision of ‘digital-services’ through the “agile approach”. • Develops a new UC system six months after the reset decision. • Issues a review report on UC. (Glick, 2016).
The Infrastructure and Projects Authority (previously known as the Major Project Authority)	<ul style="list-style-type: none"> • Provides independent assurance about UC project delivery in collaboration with other government departments, including HM Treasury • Produces a review report on UC (see the Major Projects Authority, 2013)
NAO	<ul style="list-style-type: none"> • Provides an independent audit review, including a Value for Money audit for UC (e.g. the National Audit Office, 2013b; Office, 2014).
Citizen Advice	<ul style="list-style-type: none"> • Provide critiques on the White Paper in several aspects, including the issue of childcare costs that potentially hinder low income parents from gaining financially by entering employment (see House of Commons, 2011). • Gives free advice to citizens who are experiencing problems with UC.

Welfare Rights organisations	<ul style="list-style-type: none"> • Expresses concerns about UC implementation as the government had failed to address the tension between the housing and benefit policy (see House of Commons, 2011). • Gives free advice to citizens affected by UC implementation.
PAC	<ul style="list-style-type: none"> • Scrutinises the value for money, economy, efficiency and effectiveness of UC to hold the team to account for the delivery of the programme. • Has runs the progress review since 2013 (post the NAO report) to date. • Provides a series of publications of the review results (see: Couling, 2017).
Parliament	<ul style="list-style-type: none"> • Provides a platform for MPs to debate UC issues, gain clarification and pass the actions. • Passes the White Paper, Bill and Act for UC.
Political Parties	<ul style="list-style-type: none"> • Exerts pressure regarding UC programme implementation (see Cameron, 2005). • Acts as a watchdog.
Research Institutions	<ul style="list-style-type: none"> • Acts as a watchdog. • Provides advice to the UC policy-makers and owners regarding its implementation. • E.g.: the Institute for Government
Secretary of State for Work and Pensions	<ul style="list-style-type: none"> • Chair of the DWP Departmental Board. • Directly responsible for the DWP and UC.
Permanent Secretary, DWP	<ul style="list-style-type: none"> • Chair of the DWP Executive Team. • Directly responsible for the DWP and UC.
Minister of State for Employment	<ul style="list-style-type: none"> • Universal Credit, including labour market aspects and overall programme management. • Employment strategy and labour market interventions, including: <ul style="list-style-type: none"> ○ conditionality and sanctions ○ youth employment ○ women's employment ○ black, Asian and minority ethnic employment ○ Fuller Working Lives ○ New Enterprise Allowance • Job Centre Plus, partnership working and employer engagement • EU and international affairs, including support for the Secretary of State on Brexit • Support to the Secretary of State on devolution
Minister of State for Disabled People, Health	<ul style="list-style-type: none"> • cross-government disability issues • work and health strategy, including sponsorship of the

<p>and Work</p>	<p>Joint Work and Health Unit</p> <ul style="list-style-type: none"> • Disability employment, including Disability Confident, Work Choice, Access to Work, the Work and Health Programme and mental health in the workplace • support for those at risk of losing their job, including occupational health and Statutory Sick Pay • financial support for sick and disabled claimants, including: <ul style="list-style-type: none"> ○ Universal Credit ○ Disability Living Allowance ○ Personal Independence Payment ○ Employment and Support Allowance ○ Attendance Allowance ○ Industrial Injuries Disablement Benefit ○ Carer’s Allowance • specific welfare and health-related issues, including Motability and arms-length compensation schemes • oversight of the Health and Safety Executive and the Office for Nuclear Regulation
<p>Parliamentary Under Secretary of State for Family Support, Housing and Child Maintenance</p>	<ul style="list-style-type: none"> • workless families, relationship support and support for disadvantaged groups • childcare and maternity benefits • child maintenance • financial support for housing, including Universal Credit • Other social assistance, including supported accommodation, Support for Mortgage Interest, Cold Weather Payments, bereavement benefits and funeral payments • benefit cap implementation and benefit uprating
<p>Director General, Universal Credit Programme</p>	<ul style="list-style-type: none"> • The Universal Credit Director General and Senior Responsible Owner is accountable for implementing the government’s main welfare reform programme, including: <ul style="list-style-type: none"> ○ owning and communicating the vision of the programme ○ ensuring that the implementation of Universal Credit is completed safely and securely ○ providing clear leadership to the programme team
<p>Director General Universal Credit Operations</p>	<ul style="list-style-type: none"> • The day-to-day running of Universal Credit operations across Great Britain via Job Centres and service centres. • The provision of all working age face-to-face services through Job Centres, including the relationship with employers and other external partners.

Director General, Chief Digital and Information Officer	<ul style="list-style-type: none"> • Accountable for the strategy, maintenance, integrity, value for money and continuous improvement of the Department for Work and Pensions (DWP) information technology (IT) services and systems.
Director General, Human Resources	<ul style="list-style-type: none"> • Sets the department's HR strategy, aligning this to both the business strategy and the Civil Service Reform.
Director General, Operations	<ul style="list-style-type: none"> • delivering public services for the Department for Work and Pensions • providing services to promote parental responsibilities (including family-based arrangements) and managing the statutory child maintenance scheme
Director General, Strategy, Policy and Analysis	<ul style="list-style-type: none"> • advises and supports ministers and the Permanent Secretary on current and future policies, including: <ul style="list-style-type: none"> ○ the labour market ○ welfare reform ○ pension reform ○ social justice

Appendix 5: List of Secondary Legislation Related to Universal Credit's Implementation

1. Social Security (Miscellaneous Amendments) No.1 Regulations (SI.No.443/2013)
2. Universal Credit (Consequential, Supplementary, Incidental and Miscellaneous Provisions) Regulations 2013 (SI.No.630/2013)
3. Universal Credit (Miscellaneous Amendments) Regulations 2013 (SI.No.803/2013)
4. Social Security (Miscellaneous Amendments) (No.2) Regulations 2013 (SI.No.1508/2013)
5. Universal Credit (Transitional Provisions) and Housing Benefit (Amendment) Regulations 2013 (SI.No.2070/2013)
6. Housing Benefit and Universal Credit (Size Criteria) (Miscellaneous Amendments) Regulations 2013 (SI.No.2828/2013)
7. Welfare Benefits Up-rating Order 2014 (SI.No.147/2014)
8. Universal Credit and Miscellaneous Amendments Regulations 2014 (SI.No.597/2014)
9. Universal Credit (Transitional Provisions) (Amendment) Regulations 2014 (SI.No.1626/2014)
10. Universal Credit (Digital Service) Amendment Regulations 2014 (SI.No.2887/2014)
Universal Credit and Miscellaneous Amendments (No.2) Regulations 2014(SI.No.2888/2014)
11. Welfare Benefits Uprating Order 2015 (SI.No.30/2015)
12. Social Security (Information-sharing in relation to Welfare Services etc.) (Amendment) Regulations 2015 (SI.No.46/2015)
13. Universal Credit (Work-Related Requirements) In Work Pilot Scheme and Amendment Regulations 2015 (SI.No.89/2015)
14. Universal Credit (Surpluses and Self-employed Losses) (Digital Service) Amendment Regulations 2015 (SI.No.345/2015)
15. Universal Credit (EEA Jobseekers) Amendment Regulations 2015 (SI.No.546/2015)
16. Universal Credit (Waiting Days) (Amendment) Regulations 2015 (SI.No.1362/2015)
17. Universal Credit (Work Allowance) Amendment Regulations 2015 (SI.No.1649/2015)
18. Universal Credit and Miscellaneous Amendments Regulations 2015 (SI.No.1754/2015)
19. Universal Credit (Transitional Provisions) (Amendment) Regulations 2015 (SI.No.1780/2015)

20. Universal Credit (Surpluses and Self-employed Losses) (Change of coming into force) Regulations 2016 (SI.No.215/2016)
21. Universal Credit (Transitional Provisions) (Amendment) Regulations 2016 (SI.No.232/2016)
22. Social Security (Jobseeker's Allowance, Employment and Support Allowance and Universal Credit) (Amendment) Regulations 2016 (SI.No.678/2016)
23. Social Security (Treatment of Postgraduate Master's Degree Loans and Special Support Loans) (Amendment) Regulations 2016 (SI.No.743/2016)
24. Universal Credit (Benefit Cap Earnings Exception) Amendment Regulations 2017(SI.No.138/2017)
25. Universal Credit (Surpluses and Self-employed Losses) (Change of coming into force) Regulations 2017
26. Employment and Support Allowance and Universal Credit (Miscellaneous Amendments and Transitional and Savings Provisions) Regulations 2017 (SI.No.204/2017)
27. Universal Credit (Housing Costs Element for claimants aged 18 to 21) (Amendment) Regulations 2017 (SI.No.252/2017)
28. Social Security Benefits Up-rating Order 2017 (SI.No.260/2017)
29. Social Security (Social Care Wales) (Amendment) Regulations 2017 (SI.No.291/2017)
30. Universal Credit (Reduction of the Earnings Taper Rate) Amendment Regulations 2017(SI.No.348/2017)
31. Social Security (Restrictions on Amounts for Children and Qualifying Young Persons) Amendment Regulations 2017 (SI.No.376.2017)
32. Universal Credit (Miscellaneous Amendments, Saving and Transitional Provision) Regulations 2018 (SI.No.65/2018)

Source: <https://revenuebenefits.org.uk/universal-credit/legislation/secondary/miscellaneous-and-consequential-amendment-regulations/>