Enactment of Standardised Pan-Governmental Enterprise System through Sociomaterial Dramaturgical Performances:

A Bahraini Case Study

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When Ibn al Mubarak, an Islamic Scholar of 8th century was asked "Untill when will you seek knowledge?"

He responded, "Probably the word which is most useful to me I have not written it yet."

Declaration

This thesis has not been submitted in support of an application for another degree at this or any other university. It is the result of my own work and includes nothing that is the outcome of work done in collaboration except where specifically indicated. Many of the ideas in this thesis were the product of discussion with my supervisor Professor Niall Hayes and Professor Lucas Introna.

Excerpts of this thesis have been published in the following conference manuscripts and academic publications.

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Abstract

There is an ongoing drive among governments globally to modernise their public service delivery by means of ICT. Bahrain's government was no different when it implemented a national enterprise system to standardise work across the public sector. The purpose of this research is to investigate the work practices of public officials in Bahrain's government departments as they appropriated this standardised technology in their everyday work. The aim is to understand how a nationally imposed standardised technology can be worked out in practice despite that it could be argued that the conditions for its accomplishment do not actually fully exist.

This study draws on an agential realist approach to sociomateriality (Barad, 2007; Orlikowski & Scott, 2008) in combination with Goffman's dramaturgical analysis (1959) to analyse the dynamic interactions that accomplish the 'standardisation' of the technology. The research follows an interpretive case study approach embedded within a qualitative research paradigm. The fieldwork was conducted on the premises of the public organisation that houses and manages the national enterprise system, as well as two government departments that constitute some of its user groups. The research methods involved a total of 64 unstructured interviews, many hours of participant observation sessions, and the reviewing of secondary documents—all conducted during three intermittent fieldwork phases.

This thesis demonstrates that the standardised technology is accomplished through particular sociomaterial dramaturgical performances. These emergent performances can have performative implications for the sociomaterial participants involved, including the standardised technology itself. Thus, rather than being a passive technology artefact, the standardised technology occupies various dramaturgical roles in the provision of e-government services. Moreover, this research shows and argues that rather than displacing the indigenous pre-modern practices of public administration in ministries, the standardised technology reconfigured these long-established local practices to be necessary for achieving e-government services in Bahrain. Situated within the Information Systems literature, this research provides novel ways in re-conceptualising technologies of standardisation. For practitioners, this research presents insights into the nuanced practices of the implementation of standardised technology across public organisations in Bahrain, and similar environments.

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For me, the past years have been memorable intellectual journey in studying at Lancaster University. I greatly appreciate the challenges as well as support that I experienced on this research venture. It had shaped me in ways that I could not imagine possible before embarking on my Ph.D. study.

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I dedicate this thesis to my beloved country, Bahrain. Not only because it is where I was born and brought up, but because of generous people who define it. It is also reassuring that the leaders of the country's institutions are open-minded and pro-active to pursuit what is best for our homeland. I am appreciative all the four government bodies which allowed me access to their premises and participate in this research.

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List of Abbreviations and Acronyms

HRB – Human Resources Bureau

EGA – E-Government Authority

ERP – Enterprise Resource Planning

G2E – Government-to-Employee

ICT – Information and Communication Technology

II – Information Infrastructure

IIT – Information Technology Transfer

ISO – International Organization of Standardization

MoA – Ministry of A

MoB – Ministry of B

NCR – Non-Conforming Report

NPM – New Public Management

QIDS – Quality Information Data Systems

UN – United Nations

List of Appendices

1 Introduction

This thesis investigates the practices involved in working out a national centralised HR enterprise system introduced across the whole of Bahrain's public sector in order to modernise public service delivery. This research is conducted through interpretive, qualitative means and draws upon a sociomaterial analytical position in combination with Goffman's dramaturgical to understand the work practices that accomplish the standardised ERP system.

The aim of this introductory chapter is to provide background on the journey this thesis has undertaken. This chapter starts a brief overview of what this research is about (1.1). The second section provides my reasons behind choosing and studying this research topic (1.2). The following section proposes the specific research questions underpinning this research (1.3). The last section outlines the chapters of this thesis (1.4).

1.1. Research Overview

Over the years, government entities sought to modernise their operations through ICT-means (Information and Communication Technologies) with the aim of streamlining the administrative processes and improving the public services delivery (Bovens & Zouridis, 2002; Fountain, 2001a). This is particularly relevant to the Arab region where ICTs are regarded as provide the means to foster modernity and good governance through "simplification of procedures, reformation of managerial procedures and the restructuring of institutions" (Jreisat, 2009, p. 49). This is also the case in Bahrain where the government has

chosen to modernise its operations by implementing an inter-departmental standardised enterprise system across the public sector. It is through the standardisation processes in Bahrain that many of the overall aims of the modernisation such as efficiency and equity can be attained, at least in principle (Karolak, 2016, p. 157). IT standardisation aims to do so through the depersonalisation of public services delivery to assert standardisation in their conduct by rooting out corruption and ad hoc local practices (Kim, Kim, & Lee, 2009) and instilling impartiality in the electronic provisions of public services (Bovens & Zouridis, 2002). The assumption here is that the enterprise system is incorporated with pre-conceived 'best practices' of public services which are supposed to control and stifle local practices that do not conform with its inscribed standardised practices (Wagner, Scott, & Galliers, 2006). So, in essence, Bahrain's centralised enterprise system is introduced with a jurisdiction to manage virtually all the human resources affairs within the nation's public sector.

What is of interest here is how an imposed centralised system – which upholds certain standardised 'best practices' – is able to function across the whole of the country's public sector. To extend this, how can a formally imposed national ERP, accommodate/control local organisational practices peculiar to governmental departments as well as the socio-cultural practices which are engrained within Bahrain society? Extensive research within the IS discipline has overwhelmingly demonstrated that imposing a standardised enterprise system is bound to fail (Hanseth, 2014; Heeks, 2002). Moreover, there is a general reluctance to implement drastic public reform in the Arab countries (Jabbra & Jabbra, 2005; Jreisat, 2009) including the Kingdom of Bahrain (Common, 2008). This brings us to the heart of the overarching research question of this thesis: How is standardisation through ERP accomplished in Bahrain? An extended version of this question can be framed thus: How can the standardised ERP be accomplished in a context where the conditions for its accomplishment do not exist? The current IS literature – especially those conducted in a Middle Eastern empirical settings – does not provide a clear account of the conditions that make the technology work (Shoib & Jones, 2003). Instead of addressing these questions by saying that standardisation is achieved by simply formalising and subscribing to the main tenets of the enterprise system's 'best practices', it is more productive to examine the actual emergent practices that enact those seemingly standardised 'best practices'.

Hence, the focus of this research is on the work practices that are vital to the enactment of the centralised enterprise system. As this entails, the unit of analysis of this study are the

practices that revolve around or are associated with the standardised system of interest. The objective is to engage in and contribute to the current debates within the IS discipline with regards to the technologies of standardisation.

As a methodology, this research adopts an interpretive case study approach that employs a qualitative research paradigm as my research design. The research methods essentially involve unstructured/semi-structured interviews, participant observations and secondary documents as data elicitation techniques. The main participants in the study include the developers and managers of the centralised national system as well as the user groups of two government ministries. As a theoretical framework, this case study is analysed by the fusing of Goffman's dramaturgical analysis (Goffman, 1959) with the performativity notion of agential realism's sociomateriality (Barad, 2007; Orlikowski & Scott, 2008). This synthesis of analytical positions is productive to make sense of the performances involved on how the centralised standard ERP system is performatively configured and reconfigured in various scenarios of its accomplishment.

1.2. Research Motivation

The purpose of this section is to elucidate my reasons for opting to research this case study. What motivated me to choose Bahrain as my empirical research field, beside the fact that Bahrain is my country of origin, are twofold. Firstly, Bahrain's unique demographic characteristics and government structure both condition the implementation of a national ERP software. Secondly, Bahrain made aggressive investments in ICT-means in its bid to modernise and be a global leader in technology innovations.

One intriguing point about Bahrain is its geographical and demographic characteristics. According to the official census conducted by the government (census2010.gov.bh), the population of Bahrain is slightly more than 1.2 million (around half of them are non-nationals). With area size of roughly 765 km^2, Bahrain is considered one of the smallest sovereign countries in the world. In terms of public administration, this demographic characteristic of Bahrain has a couple of significant implications which are relevant to this study. Firstly, the demography of Bahrain enables the whole country to be governed by a single centralised government. This renders the issues with regards to devolving public administrative duties from centralised to regional governments to be inapplicable. Secondly,

and more importantly, Bahrain's demographic situation allows the central government to serve all its constituents more readily. Thus the central government in Bahrain is able to integrate the whole public sector information within single unified repositories, such as the HR enterprise system, a system which my thesis is interested in investigating.

What initially sparked my interest was how a single HR system can handle the payroll of virtually all of Bahrain's civil servants. The state is undisputedly the biggest employer in the country. More than 42% of all working Bahrainis are employed by the state (Selim, 2008, p. 18). The sheer size and diversity of the government render it to be a challenge to manage and control efficiently. Having a single integrated enterprise system to govern almost half of the working force of a country is remarkable on its own Bearing in mind that IS studies has demonstrated that many large-scale IT projects within developing countries are highly susceptible to failure (Saxena, Dempsey, & McDonagh, 2016; Dwivedi et al., 2014; Nelson, 2007; Heeks, 2002), I found it interesting to identify the reasons that make this HR 'one-size-fit-all' national ERP succeed in Bahrain?

The second circumstance that drew me to conduct my case study on Bahrain is the very high investment for the role ICTs to have within the country dynamics, including the government. In other words, what is intriguing about Bahrain's ICT development is its active drive to be a global contender within a short span of time. With oil reserves being depleted rapidly (Alumran, 1986), Bahrain for a solution looked into the diversification of income, mainly through the services industry such as the financial and tourism sectors. This earns the country the status of being the first "post-oil" economy, a fate which will be experienced by other countries in the region (Peterson, 2009, p. 157). To compete globally, the Bahraini government has embraced an ambitious long-term strategic vision which it dubbed as Economic Vision 2030. The impetus behind the vision is to invest in ICTs advancement so as to reap the benefits of public sector reform. According to an Economic Development Board (2010) article:

> *"In 1969, Bahrain started the first satellite station in the region. It was the first in the region to completely digitize its national and international phone switches (1992); the first in the region to launch Internet services (1995); hold an online referendum (2001); introduce smartcards (2005); fully liberalize its telecommunications market (2004); and to go nationwide with WiMax wireless networks (2007)".*

This continuous strife for technological pioneering can also be observed in the transformation of the public sector as well. This attitude is confirmed in the local parlance among Bahrainis who boast that Bahrain is always 'Sabbagah', which translates as 'before or ahead of others'. Indeed, within a period of a few years, over 150 public services underwent e-government transformation to be delivered through electronic means. To provide a perspective on the extent of ICT-based public sector transformation, Bahrain consistently over the years achieved the top ranking in the Arab region (UN, 2012, 2014, 2016); achieving the 24th position worldwide in the latest E-Government Index (UN, 2016).

The single centralised HR system – which this research is interested in – is among the many ICT projects to be transformed in order to streamline the delivery of G2E (Government-to-Employee) public services. The Human Resources Bureau (HRB)[1], the governmental organisation which owns and manages the centralised system, is a proactive participant in the national drive for ICT-mediated change. The following excerpt from an interview conducted by McKinsey Management Consultancy with the CEO of Bahrain's Economic Development Board underlines this statement:

> *"The role of the Human Resources Bureau is changing: it is used to be as a bureaucratic police, an enforcer of procedures, but now its main responsibility is to develop talent within the government and essentially leave the administration of procedures to the ministries. The bureau is updating its plans to deliver on this new mission. Through the Human Resources Bureau, the transformation will reach the 40,000 or 50,000 people across the entire civil service." (Murshed, 2008: emphasis added).*

Hence, the contributing role the HRB has on the overall vision of ICT-based public sector transformation using standardised technology intrigued me to pursue this case study. More specifically, what role does the standardised technology has in the overall modernisation of government operations.

[1] For anonymity purposes, Human Resource Bureau (HRB) is used pseudonym henceforth for the organisation I am interested in.

To summarise this section, what made the choice of Bahrain to be empirical premise to investigate standardised technology is two-fold. One is the unique demographic characteristic of Bahrain that made it feasible to impose a national ERP system across the whole government. The other reason is the recent drive for ICT-mediated modernisation of the public sector to make Bahrain a global contender. With regards to the centralised system, what intrigued me is how such a vast national enterprise system can work. This comes despite the conventional wisdom within IS literature that such cross organisational implementation is very challenging if not unattainable. These conditions of the enterprise system provided me with an impetus to conduct an empirical-driven research to investigate the 'behind the scenes' practices involved in enacting the national pan-governmental HR enterprise system throughout the years, despite the probable local intricacies of the various government departments.

1.3. Research Focus and Questions

The research focus of this thesis is on the accomplishment of the technology of standardisation. With this focus in mind, this thesis is an endeavour to understand how a national standardised enterprise system is enacted in practice within a Bahraini public sector setting. To do so, I need to explore the rationale and intentionalities prescribed into such a system. Subsequently, I highlight how those institutionalised HR 'best practices' are enacted within situation-specific contexts of Bahrain's public sector. What is of special interest here is how the plans envisioned for the system are appropriated against (or along with) the situated actions within the Bahrain's contextual backdrop. Drawing on sociomateriality and Goffmanesque notions on practices, the following theoretically-informed overarching research question captures the essence of the line of enquiry this thesis follows:

RQ1 – In what ways are the practices being (re)configured to enact and perform a standardised pan-governmental enterprise system as part of Bahrain's modernisation drive to provide e-government services?

The practices that emerge from enacting the standardised system can have performative implications on the participants involved, including standardised system itself. The

subsequent consequences of accomplishing the standardised system on those who participate in its enactment and performance provide insights into practices that make it work. So an objective of this question is to examine the performative consequences that the configuring and reconfiguring of the standardised system has on others involved in its enactment. Note that this research question is theoretically informed where the term 'enact' is indicative of a practice-based study, '(re)configured' is a nod towards a sociomaterial positioning of its assumptions, and 'perform' signifies a Goffmanesque dramaturgical analysis of the working of the technology of interest.

To move to the next research question, what is of particular interest within the context of Bahrain is how local informal practices that permeate society, such as Wasta, are being enacted with the introduction of the said system? To put it in a more theoretical wording: how such informal practices can be conceptualised and subsequently understood as they are being enacted and performed within Bahrain's public sector setting. This includes various assemblages of human and non-human actors that are associated with such accomplishment. Hence the following related research question:

RQ2 – In what ways are the Bahrain's local informal practices being (re)configured through situation-specific social and material arrangements in the enactment and performance of the formal national enterprise system?

The standardised system is not implemented in a vacuum. There are already in place a set of norms, rules, and procedures for the public administration prior to the ICT-based transformation. Nevertheless, we have an intrusive fully functioning cross-departmental HR system in Bahrain to be part and parcel of everyday public administration. It touches upon the wages of thousands of public officials in government. Hence, the objective of this research question is to understand if the technology that ameliorates public service delivery through standardisation is able to eradicate those now non-standard local practices. If not, then whether those local practices co-exist in a harmonious unison or constant contention with the centralised system that is meant to stamp them out. With these research questions and objectives in mind, the following section outlines the thesis chapters which are crafted in an attempt to address them.

1.4. Thesis Outline

This thesis is composed of ten chapters. The present introductory chapter starts off with a brief research overview of the thesis. The chapter then elucidates my motivation for pursuing this research topic. Later it presents the key theoretically-informed research questions this thesis aims to tackle.

The second chapter reviews the extant Information Systems literature on relevant themes that are concerned with achievement of standardisation through technology. The first section starts off by review the literature on how technologies of standardisation can be mediated to modernise public service delivery and bureaucratic operations in government. The next section examines the literature with regards to standardised 'best practices' as they are inscribed into enterprise systems and how these have been problematic leading to some unintended consequences. The next section looks at the IT standardisation literature of information infrastructure as a promising strategy to solve standardisation across inter-organisation by nurturing local practices instead of stifling them. The last section reviews and problematises the mainstream IT Transfer literature that approaches standardised technology as western-centric in its deployment in the Middle East. More specifically, the last section argues for research which accounts to sociocultural specificities in the implementation and use of standardised technology.

The third chapter discusses the theoretical positioning that informs the research's analysis. This chapter starts with the importance of practice-based theory in addressing technology studies. It then goes on to problematise how the social and the technical has been conceptualised within IS literature and evolved from a technological and social determinism. It then moves to introducing the ontologically relational concepts of sociomateriality as a promising theoretical approach. The following section describes how the dramaturgical analysis can be useful to understanding technology. The final section discusses how a sociomaterial take on Goffman's dramaturgy can be productive to addressing the issues raised about Goffman's analysis.

The fourth chapter presents the methodological approach employed for this research. This chapter starts with the philosophical assumptions that underpin this research. The following section then provides a reflective account of the informal ways that were crucial in gaining

access to the empirical sites. The final section presents a reflective narrative of the experience in conducting the data collection and analysis.

The fifth chapter serves as a descriptive background of the case study. It is imperative to provide the canvas that sheds some light on the shaping of the technology before presenting the findings of its appropriation in practice. This chapter starts with a narrative of the political and economic conditions that shape Bahrain. The next section is about the government organisation that manages everyday affairs of the national system, the HRB. The final section is a narrative that traces the development cycles the enterprise system went through from a payroll system to a comprehensive HR system that provides e-government services.

The sixth and seventh chapters present the empirical findings of the case findings. The sixth chapter is focused on the internal practices of the HRB as they utilise the central ERP to deliver public service delivery. More specifically, it looks at how the quality tracking component of the ERP is used to monitor public service delivery for quality control and service delivery. The seventh chapter is dedicated towards the inter-organisational service delivery between the HRB and the respective user groups. More specifically, it looks at how the leave application component of the central ERP is appropriated in situ. Both these chapters are descriptive in their format and do not provide any analysis or engagement with the literature or theory.

The eighth chapter is the analysis chapter. It is crafted to present the emerging analytical themes that cut across the empirical findings. The analysis of the case findings is based on the theatrical framework proposed in the theory chapter, dramaturgical sociomaterial analysis. It assumes that the standardised system assumes various dramaturgical roles as is performed in situ. Subsequently, it also presents the potential performative implications the standardised system's accomplishment has on those who participate in its enactment.

The ninth chapter discusses the potential contribution this thesis has on the relevant IS literature and theory. The first contribution section posits that the standardised ERP is a sociomaterial accomplishment that is enacted according to an audience-mediated context. The next section presents the notion of sociomaterial capital as a novel way to explain how the socio-historical social capital of Wasta is crucial in the enactment of the standardised ERP. The final section demonstrates how the imbrication notion of the pre-modern and

modern modes of public administration is necessary for the accomplishment of the standardised system in public services delivery in Bahrain.

The tenth and final chapter provides the conclusion to this thesis. It starts by restating the initial aims of this case study and presents an overview of its key ideas. This is followed by a summary of the key findings of this research, along with the potential contribution to academia and practice. It opens up future research both to standardisation of technologies as well as research conducted in Bahrain or Arab region more broadly. The final section lays out the limitations of the research, with final remarks of possible future research.

2 Literature Review: Modernity through Standardisation of ERP Technology and their Enactment in Developing Countries

2.1. Introduction

This chapter surveys the body of IS literature that delves into information technologies which are utilised for standardisation purposes. This stems from the interest to understand Bahrain's efforts to modernise its public service delivery through standardisation by technology means. To expand this statement: this thesis aims to investigate the modernisation pursuit to standardise public administration using enterprise system as standardisation within the specific sociocultural conditions of Bahrain. This chapter reviews the bodies of the IS literature that are relevant to this research focus. It is crafted in such a manner as to (a) demonstrate sufficient understanding of the current IS literature with regards to technology of

standardisation, (b) situate this thesis within the intersection of broad IS debates with regards to standardised technology and (c) identify potential hooks for this thesis to relate and contribute back to.

The thread that connects these seemingly disparate bodies of IS literature is the technology of standardisation. Heuristically, the chapter is divided into three overlapping IS literature domains: Modernisation of government through ICT standardisation, enterprise systems as standardising technological artefact, and IS studies interested in the relation of technology and local historical and cultural conditions of its implementation. The first section (2.2) engages with the literature which argues for the centrality of ICT to facilitate the modernisation and/or transformation of government bureaucracy. The following section (2.3) looks at the implications of achieving e-government transformation through technologies of standardisation in particular. The next section (2.4) reviews and critiques the enterprise systems literature that tends to associate such technologies to embody the 'best practice' standards. Following this, the next section (2.5) touches at the Information Infrastructure as the latest modes of accomplishing standardised technology across organisations. The last section (2.6) reviews and problematises the dominant literature which studies IT implementation and use within non-western context, and more specifically its engagement with local cultural issues. The main argument of this literature review to provide the groundwork to justify a practice-based approach to be valuable in studying technologies of standardisation in a non-western context such as Bahrain.

2.2. Modernisation of Bureaucracy and the Technology Promise

This first section of this chapter examines the literature with regards to bureaucracy and the role technology has to its working and modernisation. As with many governments in contemporary times, Bahrain's government is modelled around the Weberian system of bureaucracy (Ali, 2010) to maintain stability and security which it inherited following its independence from the British. The general objective of government bureaucracy is to achieve equality, impersonality, and fairness between the government and its citizens (Weber, 1947). According to Kallinikos (2004b, 2006), bureaucratic organisations are characterised by three defining features: A formal hierarchical structure, a clear division of labour and

tasks, and sets of rules and regulations to explicitly inform the decision-making process. This form of government is perceived to be of value in sustaining and structuring large organisations, especially if the bulk of the public administration tasks conducted are routine and contextually repetitive (Cordella, 2007). This is particularly applicable to standardised employment practices such as recruitment, promotion, and appraisal (du Gay, 2005, p. 106). In its ideal form, a Weberian system of government advocates principles of impersonality and fairness to all its citizens (Clarke & Newman, 1997; du Gay, 2000). This sets the rational organisation away from the patronage forms of pre-bureaucratic practices which are governed by "a series of 'private' group prerogatives and interest" (du Gay, 1996, p. 29).

However, bureaucratic processes have been criticised over the years to be impersonal and red-taped (du Gay, 1994; 2000). Indeed there are populist managerial studies (Osborne & Gaebler, 1993) that advocate the breaking off of the traditionalist bureaucratic apparatus to modernise public administration towards post-bureaucracy (Heckscher, 1994). Others argue that Weberian bureaucracy is never meant to be static and continues to evolve in changes within public administration (Dunleavy & Hood, 1994; Kallinikos, 2004b). Nevertheless, what emerges is that there is no cut-off point to indicate the move to the modernised e-government from the Weberian model of government (Bloomfield & Hayes, 2009). Indeed, any ICT mediated modernisation attempt are renegotiated continuously and in different ways that to various degrees reassert the old ways instead of discarding it (Introna, Hayes, & Petrakaki, 2009; Petrakaki & Klecun, 2015). In any case, the main point made here is that ICT-means are resorted to for the modernisation of public services.

It is technology that can be the medium and catalyst for the modernisation and transformation of public services delivery. Indeed it is claimed that "the history and evolution of governing and the state is inextricably entwined with the history and evolution of … ICTs" (Henman & Dean, 2010, p. 77). Whether it is to make the bureaucracy more efficient (Cordella, 2007) or to transform it to a more consumer-centric government (Hayes, Introna, & Petrakaki, 2014), ICT is sought out for the tools and techniques to achieve such ends (Cordella & Tempini, 2015; Fountain, 2001a). This growing interest in the post-bureaucratic agenda envisaged a notion of utilising the ICTs to achieve significant public administration transformation. Indeed, public sector managers tend to value administrative efficiency of economies of scale to be the most tantalising of the many potential public value benefits (Rose, Persson, & Heeager, 2015). Indeed, a substantial taxonomical analysis of ICT-based public

transformation found out that the ‘‘*clearest positive impacts* generated by IT on public administration are in the areas of efficiency and productivity of government performance” (Danziger & Andersen, 2002, p. 617 original emphases).

Despite noticeable gains in efficiency, studies show that technology’s potential to have significant transformative potential continues to be overstated by IT advocators (Atiyyah, 1988; Kraemer & King, 2003). Rather than bringing about rapid organisational change, even the most innovative technology is subject to be opted for if it can ensure that the political state to be intact and even reinforced (cf. Fountain, 2002), a situation cautioned by post-bureaucracy advocates (Heckscher, 1994). As Kraemer (1991 p. 167) puts it:

“Rather, information technology has tended to reinforce existing organisational arrangements and power distributions in organisations. Moreover, information technology will have the same effects in the future because of fundamental relationships between technology’s use, control of the technology, and interests served by the technology”.

Nevertheless, practitioners seized on the rhetoric that ICT opens up opportunities to achieve drastic public sector reform. A cautionary note to be taken into account here is that ICT does not facilitate the transformation of a bureaucracy organisation to a post-bureaucratic one per se, but enables a sort of reform that extends the boundaries of the public and non-public operations (Budd, 2007). Technology enables the government entities to question their operations in relation to other forms of managerial practices. In any case, whether it is to streamline bureaucratic processes (Cordella, 2007) or to transform the public administration (Fountain, 2001a; Layne & Lee, 2001) there is no denial that ICT is integral to the modernisation efforts. To be on par with the efficient and effective private sector counterparts, managerial principles of NPM such as standardisation, disintegration, and competition are pursued which are spearheaded by e-government initiatives. The following section expands this statement further by delving into the pertinent e-government literature that looks at technologies of standardisation more specifically.

2.3. E-government and Technologies of Standardisation

The term e-government is generally associated with the practice of employing ICT tools to modernise a nation's public administration. There is no clear-cut definition that encapsulates what e-government is (Moon, 2002; Yildiz, 2007). We can simply describe e-government concept loosely as a set of initiatives that capitalise on ICTs and management practices to streamline a government's operational processes and provide better public services to its constituencies. The e-government initiatives are increasingly becoming a central feature in public sector transformations (Ciborra, 2005; Cordella, 2007; Cordella & Iannacci, 2010; Fountain, 2001a; Yildiz, 2007). These initiatives attempt to modernise the public administrations by echoing the private sector's ICTs and management practices (Bloomfield & Hayes, 2009; Introna et al., 2009; Petrakaki, 2008). IT-mediated public sector transformation allows the governments to embrace the 'corporate culture' of the private enterprises (Grey & Garsten, 2001, p. 236). Governments around the world, including Bahrain, are motivated by a mandate to achieve efficiency in operations, reduced costs of transactions, enhance collaboration among the public sector, and so on.

A notable consequence of ICT-based e-government transformation is to re-orient government operations from groups of compartmentalised and specialised operational bureaucratic blocks, towards a more consumer-centric delivery of public services. This entails the transformation of public administration to four groups (Siau & Long, 2006). In brief, they are the G2C (Government-to-Citizen) where the public services delivery is targeted for public citizens and dominates e-government literature; G2B (Government-to-Business) relates to government services for private enterprises and relevant regulatory policies; G2G (Government-to-Government) deals with inter-governmental transactional operations; and the G2E (Government-to-Employee) which caters to HR and performance monitoring of civil servants. Among these four categories, the G2E remains to be the least researched domain within e-government literature (Ndou, 2004, p. 5). There are those who collapse G2E within G2G services as there is an overlap of services (Fountain, 2001b). This thesis is situated within the under theorised G2E, and to a broader sense the G2G public services domain, where the consumers and clients of such services are public officials and government entities respectively.

A pertinent question is where do the concept of e-government and its accompanied consumer-centric ethos come from? There is no consensus of where e-government origins. However, it is frequently being associated with NPM (New Public Management) managerial practices. Briefly, NPM is a set of managerial policies which was inspired by the private sector consumer-centric practices to modernise its services through disintegration, incentivisation, competition and other means (Budd, 2007; Dunleavy, Margetts, Bastow, & Tinkler, 2006; Scott & Robbins, 2010). Historically, the loosely categorised NPM principles are said to emanate from Anglo-American public administrative reform during the 1980s (during the time of Thatcher and Reagan) (Jabbra & Dwivedi, 2004); which propagated neo-liberalism ideologies with the general aim of addressing the 'crisis of welfare state' (Drechsler, 2005, p. 8). A fundamental difference introduced by NPM is treating of citizens as 'customers' or 'clients'. Such shift in assumptions proved to be challenging as it eroded participatory rights and duties in democratic countries that eventually did not achieve what it sought from the onset (Ciborra & Navarra, 2005). As years passed by, NPM implications are stopped and to some extent even reversed in the developed countries (Dunleavy et al., 2006). However, elements of NPM principles inspire public administration reform in the Middle East, including Bahrain (Ali, 2010; Alghatam, 2011). (Chapter 5 provides the historical and economic conditioning of Bahrain's strife for modernisation).

Among the mechanisms for achieving modernity is the ISO certification. ISO (or International Organisation for Standardisation) initially offered recommendations to the UN Standards Coordination Committee that was established in 1944 to promote post-war trade and to coordinate national standards. However, in 1970 the ISO bolstered its jurisdiction reach as it started to publish international standards to be adopted as national standards in countries (Timmermans & Epstein, 2010). Though subscription to the proposed national standards is voluntary in principle, on the ground it is applied as obligatory. International standardised bodies capitalise on the powerful discursive practices of the neo-liberal logic that are hard for nation states to ignore and hence becomes sort of de jure mandatory (Higgins & Hallström, 2007). Other organisations subscribe to ISO 9000 as a strategic marketing ploy to demonstrate that they adhere to high-quality standards, despite not fully changing to work practices (Storz, 2007). Furthermore, it is through various technologies that these internationally inspired standards can be operationalised in the workplace (Higgins & Hallström, 2007). The ISO here is particularly relevant to this research as the technology of

standardisation under study is shaped to uphold the quality standards as accredited by the ISO 9000 formal standards.

Indeed, a robust mechanism for achieving modernity is through ICT-mediated means of enforcing standardisation. The justification is that e-government efficiency and objectivity can be attained by standardisation of public services through ICT based transformation (Bovens & Zouridis, 2002; Fountain, 2001a). Impersonality through technology is particularly useful to foster in modernisation reform and tackle corruption on the national scale (Kim et al., 2009). This is especially applicable for Arab public institutions which are claimed to be in dire need of such ICT-mediated reform in order to be a contender in the increasingly globalised world (Jreisat, 2009) where standards can be a form of social regulation (Brunsson & Jacobsson, 2000, p. 12). This is owing to the notion that "standards and standardisation are omnipresent conduits of a modernizing and globalized world" (Timmermans & Epstein, 2010, p. 71). The overarching aim of standardisation is to reduce the queues and uneven processing of public services that has typified bureaucracies in their 'street-level bureaucracy' (Lipsky, 1980). What technology provide is a platform for 'more measurements and quantification, especially in the form of systems of 'performance indicators' and/or explicit 'standards''(Pollitt, 2003, p. 27).

According to Henman & Dean (2010), standardisation through ICT conditions the emergence of NPM inspired e-governance. They point out to five interrelated implications that encapsulate the main facets of standardisation through ICT:

The first feature of standardisation is to provide a common medium for communication purposes. This allows us to have a shared common language and code of conduct. However, by enabling and normalising certain formal standards, it puts constraints on the other possibilities or alternative courses of action. When we standardised using technology, computer databases – due to their formalised requirements of having the data to be well-defined and clear – does not deal with the 'fuzziness and ambiguity' (Henman & Dean, 2010, p. 83) of the world. This limitation on data requirements has been criticised for having a limited view of the world it models on (Roszak, 1986; Toll & Mazmanian, 2016). Indeed, the formalisation of standards entails rendering the implicit and the complex to be reduced into units complacent to the processing requirements of the standardised technology.

The second point is the communication logic of standardisation is capable of regulating and ordering knowledge and practices. It is through such acts of governance that standardisation can generate 'indefinite extension' of new forms of knowledge and practices. For instance, modernisation through e-government produces and reconfigures public officials to be specialists in expert domains rendering them to be data analysts and reporting specialists, who now occupy important positions that are essential in the standardisation process of defining and hence normalising performances in public administration. Bovens and Zouridis (2002, p. 181) assert that ICT transformation of bureaucratic governments entails the rise of "dominant coalition of legal experts and system designers backed by efficiency-oriented managers." This, in turn, can downplay the public officials' local knowledge which involves highly specific decision-making and can only be made sense of in situ (Bloomfield & Hayes, 2009).

The third point of standardisation is that it is intrinsic and norm-setting. It is not about applying absolute values, but establishing norms that reflect the intrinsic characteristic of the society (or any collective). The emergent standardised values are not applied as a blanket to cover all cases. Instead, standards are employed to differentiate each individual case in relation to the normalised standards. This norm-setting process can result in defining what is to be the 'standard human' (Epstein, 2009) which is not initial intentionally but is a consequence of spillover from standard formulation and enforcement. Henman and Dean (2010) elaborate this point with the example of situating tall and short individuals to opposite ends of the average height spectrum. This is to standardise seats in airplanes, trains, and cars. Interestingly, ICTs provide the convenient means to standardised normative measures as compared to traditional bureaucratic means (Bovens & Zouridis, 2002). This is especially the case given that codified legal frameworks can be mapped into neat 'if/else' conditioning structure. This, in turn, can be easily translated to be followed by digital decision trees algorithms (Introna, 2016).

The fourth point is that standardisation establishes a mark of references which entails categorisation and classification of objects along with their respective course of action. What is peculiar about the classification process is that it is about categorising the elements where each category is mutually exclusive, and all elements of the world can fit in some pre-defined category or another (Bowker & Star, 1999). These classified groupings into sub-population are promoted by technology which allows for targeted governance. For instance, profiles of

customers are reconfigured to be segmented in according to their buying behaviour. The members of each grouping collective can be governed in accordance with the pre-ordained classification, what Henman and Dean (2010) denote as "standardized individuality"; which is in contrast to the personalised treatment of case-by-case attributed to traditional street-level bureaucracy (Lipsky, 1980).

The fifth and last point is that implications of the standardisation process of normalisation can be a governmental and moral one. Such standardisation serves the purpose of identifying those who are not complying or fulfilling the defined standard. For example, to incorporate the 'unemployed' citizens to be constitutive of a normal functioning of society, governments follow articulated standards to identify those who are not within the boundaries of the society's norm (e.g. youth on crime, dropping out of school) and introduce normalising programs (e.g. counselling, mandatory education). When it comes to technology, computer data structures and their designed modes of operation govern organisation in congruence with the standards inscribed. So in a sense, the computer databases perform a new form of visibility where they define what is "primarily centralized, universal, formal, quantitative and comparative ... giving rise to entirely new quantitative, reflective and governmental relationship between the management and the organisation" (Henman & Dean, 2010, p. 87). Empirical studies demonstrate how technology is deployed to govern factory workers in accordance with compliance practices (Jonsson, Holmström, & Lyytinen, 2009), hotels through online valuation practices (Orlikowski & Scott, 2013) or students using plagiarism software (Introna & Hayes, 2011). Hence, standards are not intrinsically neutral, but its objectivity and applicability are heavily contested in practice (Timmermans & Epstein, 2010, p. 74).

To summarise, the standardisation through technology in organisational settings provides formalised communication logic. However such standardisation process invariably reduces the complexity of knowledge instruments into explicit operable data fields. The resulting data structures of standardisation generally reflect what is constituted to be the norm according to the organisation's characteristics. In any case, ICT based standardisation can make it easier to structure, classify, compare and hence govern subjects according to the normalised formal and regulatory framework. Incidentally, enterprise systems are the pinnacle technological artefacts that achieve the articulated standardisation. The next literature section reviews how

enterprise systems are considered to be the beacons of standardisation of ‘best practices’ in their settings.

2.4. ERP and Standards of ‘Best Practices’

Enterprise systems are generally associated to be technologies that implore standardisation. There is no doubt with regards to the tremendous investment and commitment towards the development of enterprise systems as technologies of standardisation. This, in turn, has driven academics and industry consultants to research its ‘impact’ and how best to realise its full potential. The literature on ERP (Enterprise Resource Planning) is vast, spanning from studies on the selection and implementation process of an ERP (Nicolaou, 2004; Shaul & Tauber, 2013), identifying the critical factors for ensuring that the ERP system addresses the organisational needs (Shang & Seddon, 2002), successful/failed case studies (DeLone & McLean, 1992, 2003; Dwivedi et al., 2015; Finney & Corbett, 2007) as well as in public sectors (Wagner & Antonucci, 2009) and private institutions (Gratton & Ghoshal, 2005) and even studies within the context of different countries (Soh, Kien, & Tay-Yap, 2000).

ERPs are generally understood as generic, standardised software packages that are modified to a particular industry and can be further tailored to the specific organisation’s requirements (Pollock, Williams, & D’Adderio, 2007). Unlike traditional software, ERP systems are usually pre-configured to different industrial standards before they are deployed (Davenport, 2000). Therefore, there are ‘many templates’ of ERP systems that can be used to accommodate the client’s organisational needs. Generally, ERP systems are implemented as ‘thee’ technological artefacts to standardise data and information processing of the organisation. Given the complexity of software, organisations often opt to ‘off-the-shelf’ ERP vanilla solutions. It is not recommended to modify the purchased ERP (Boudreau & Robey, 2005; Robey, Ross, & Boudreau, 2002; Wagner & Antonucci, 2009) as it can complicate future technical patching and updates. Vendors advertise their ERP templates to capture the ‘best practice’ logic the industry has to offer and those standards are continuously being refined by years of expertise in the industry (Benders, Batenburg, & van der Blonk, 2006, p. 197). They are praised in a manner that strongly appeals to every organisation’s management (Al-Mashari, Al-Mudimigh, & Zairi, 2003). In fact, the core idea of ERP as a technological artefact is that it provides an opportunity for the organisation to re-establish itself as a more

efficient and effective institution through standardisation and away from the 'old fashioned' ways of operations. This relates to the earlier section where public organisations can realise modernity and reform by implementing ERP as the technology of standardisation. However, we cannot delve into literature ERP standardisation technology further without deliberating with the notion of 'best practices' standards as it is commonly associated with ERPs.

The term 'best practices' is used widely in the business world. According to Oxford dictionary, 'best practices' is defined as the "commercial or professional procedures that are accepted or prescribed as being correct or most effective" (Stevenson & Waite, 2011, p. 128). It is a set of standardised procedures or methods that represent the industry's current benchmark. To put it succinctly, 'best practices' are not any standards, but the best standards in the current industry. It has roots in the manufacturing industry where work operations are standardised to maintain the quality of products consistently. The interoperability of the industry's 'best practices' to different organisational settings is made feasible by standardisation processes themselves. Ewald (1990, p. 51) refers the standardisation process as a function of technical normalisation of work operations used by engineers. The transferability of standards is made possible due to three features that are characteristic of standardisation process: *simplification*, eliminating or reducing the number of models of the object; *unification*, making parts to be compatible, interchangeable and replaceable; and *specification*, clear articulation of the respective procedures. These 'best practices' are generally generated from the technical normalisation of the standardisation process.

However, 'best practices' happens to have different meanings to diverse industries (Wagner et al., 2006). For manufacturing, as indicated previously, best practices tend to mean production benchmark which the factory aims to achieve. However, for regulators, best practices represent the guidelines for legal and regulatory compliance. Whereas in the medical counselling, best practices are the medical practices that emerge from rigorous evidence-based research (Sexton, 2001, p. 499). Whereas in enterprise system's literature, O'Leary (2000, p. 22) defines best practices similar terms to the manufacturing industry where it is understood as "the better or best ways of performing a particular process". This is by no means an exhaustive use of the term, but it provides us with a grasp of the breadth of its usage and contextualised meaning. In the IS literature where this research is situated, 'best practices' are consistently being associated with ERP. Indeed, ERPs are considered to be the technological embodiment of the standardised 'best practices' which employs its "own

techno-logic of centralization, standardization and formalization" (Lowe & Locke, 2008, p. 375).

There are benefits from utilising an ERP that bears the organisation's industry-wide sanctioned 'best practices'. Through the formalising process, ERP technology condenses a host of standard operating procedures into a set of explicit guidelines. These articulated standards can serve to coordinate people, tasks, and resources not achievable on an ad hoc basis (Timmermans & Epstein, 2010). Besides, the ERP formalised standards can serve as a template for organisational learning (Kallinikos, 2004a; Robey, Ross, et al., 2002). Moreover, the standardisation entails legitimisation of government's authority and expertise with regards to the public services delivery (Introna et al., 2009). Such potential benefits of ERP's 'best practices' led to its unabated pursuit of implementing the standardised technology in organisations worldwide.

Nevertheless, the IS literature has consistently questioned the claims of 'best practices' to be representative of the industry's best standards. Pollock et al. (2007) provide an insightful case where standardised 'best practices' are created to be a generic system yet compatible enough to fit into other similar organisational settings. Yeow and Sia (2008) discovered that what stakeholders engage in political and discursive practices to advocate their own agendas in setting the functionalities of the system. Similarly, Wagner et al. (2006) raise the rhetorical question that ''best practices' is best to whom?' is important to address as it shapes what set of practices to be inscribed as the 'best' according to certain interest groups. In essence, IT 'best practices' are not uncontroversially created to be the unequivocal benchmark standards as promoted by the vendors.

Yet, the notion of 'best practices' has a powerful rhetoric and, similar to standardisation processes, is inherently politically charged. The conceptualising of 'best practices' in technology studies stem from IT being supportive of manufacturing industry. Hence 'best practices' is consistently driven by the modernisation 'language of efficiency' (Kling & Iacono, 1984) to rationalise and legitimise certain procedures to be the direction where the technology artefact can follow through. This phenomenon is prevalent throughout the development cycle of the ERP: from its conception (Wagner & Newell, 2004) during its development (Markus, 1983) and even in the post-implementation modifications (Wagner, Moll, & Newell, 2011). Resisting its application somehow implicitly implies that opposing parties are subjecting themselves to be positioned within the 'average (if not worst) practices'

camp, which in direct contrast to the industry tested and proven ‘best practices’ that are embodied by the ERP. Not to mention that the ‘bandwagon effect’ (Abrahamson & Rosenkopf, 1993) argument can strongly influence the decision of adhering to current managerial fads and fashions waves (Abrahamson, 1996; Baskerville & Myers, 2009). Indeed, failure of an organisation to embrace the industry’s benchmarked ‘best practices’ risk of becoming ‘complacent laggards’ (Gratton & Ghoshal, 2005, p. 49). This comes on the face where key players in the organisation who have vested interest in the system would problematise current legacy practices as the reason for difficulties facing the organisation as well as lost opportunities. Besides, what better role can one ask for other than being the fore-bearers of ‘best practices’?

However, implementing the highly appraised standardised best practices of an industry through ERP is bound to face problems. ERP systems are notoriously rigid (Kallinikos, 2004a) and shaping the organisational practices to be in sync with best practices might risk the possibility a better way of performing a business process (O’Leary, 2000; Wagner et al., 2011, 2006). In fact, there exists a trade-off of standardising the ERP to be more in sync with the benchmarks of the industry, and the competitive advantages enjoyed by following idiosyncratic practices by the organisation (Davenport, 1998). However, the alternative to this is to invest in extensive customisation of ICT which is very resource demanding, if not prohibitively so. Furthermore, such tremendous commitment of resources to in-house technological development is very risky. It is easier to modify the organisation based on the ERP software, than vice versa (Benders et al., 2006; Holland & Light, 1999). So the move to towards off-the-shelf standard software that comprises of ‘best practices’ on the face of it is the better alternative.

It is quite concerning to oblige to, without questioning the ‘best practices’ touted as the industrial benchmarks. Each organisation experiences different consequences from implementing an ERP (Robey, Ross, et al., 2002) and these consequences are even perceived differently by different levels of the same organisation (Burton-Jones & Gallivan, 2007) and stakeholders networks (Cecez-Kecmanovic, Kautz, & Abrahall, 2014). ERP standardisation tends to delineate the modes of contextual knowledge and pattern of involvement that is intricate to various work situations (Kallinikos, 2004a). In fact, even where an ERP was introduced to a couple of public sector organisations of similar structure, operational scale, and organisational cultural contexts, exhibited polarised outcome of success and failure

(Tarafdar & Vaidya, 2005). Besides, industry standards are not necessarily the best in terms of quality or cost (e.g., QWERTY keyboard standard clumsiness). Instead they emerge as a result of the negotiation process that emerges to be the standardised benchmark (Higgins & Hallström, 2007) or has a compromising common denominator among organisations (Pollock et al., 2007).

Therefore it is crucial to explore the consequences of the imposed standardised system on its immediate and indirect setting. This is especially the case of moving from design to procedure issues of implementing a standardised system. Everyday work practices are prominent during the domestication of advanced technology and generally cannot be accounted for without exposure to the contextualised actions (DeSanctis & Poole, 1994; Markus, Axline, Petrie, & Tanis, 2000). As technology is used in specific contexts and the users gain experience, the technology in question is appropriated in ways not imagined by the designers (Suchman, 1987, 2007). Standards cannot satisfy "autonomous and diverse interests" (Timmermans & Epstein, 2010, p. 80). Hence improvisation, circumventions, tinkering, subversion are necessary to make standards work (Ciborra, 2000; Lampland & Star, 2009).

There are numerous studies within IS discipline that account to the work practices invoked in the engagement of standardised ERP. Boudreau & Robey (2005) emphasised the role of human agents in overcoming the inertia of an ERP by improvised learning; Zuboff (1988) looked into how surveillance and control technology is worked out to provide some degree of autonomy to its users, while also attempts to control; Ciborra (1996, 2005) coined the term 'bricolage' to refer to the innovative improvisation in the enactment of IT; Berente, Lyytinen, Yoo, & King (2016) study of NASA organisational-wide ERP posits that the ongoing adjustments to routines help to improve the integration and control of the standardised ERP while allowing room to accommodate local self-organisation. In sum, standards are bound to experience all forms of tinkering and circumventions. The main argument here is that organisational 'drift' (Ciborra, 2000) is inevitable following the introduction of a standardised ERP within any work environment. The standardised ERP system is bound to be exposed to some form of workarounds in its intermingling through accommodation and resistance.

Furthermore, the 'drift' problems are further exacerbated by imposing an ERP solution to a public sector setting (Hurbean, 2008), where there is a call to investigate IT implications in

government settings (Dwivedi et al., 2015). E-government initiatives, which include massive ERP systems in their portfolio, blur the boundaries between the private and public sectors in their bid to adopt ICT modernise public administration. Stating the obvious, private and public sector organisations are fundamentally different (Lipsky, 1980), which in turn reflects different prospects of how ICT technologies are configured. Private firms follow wealth generation strategies while the public institutions focus on distribution of wealth policies. Private firms tend to view ICT applications as competitive weapons, whereas public entities must share their competencies with other agencies (Raymond, Uwizeyemungu, & Bergeron, 2006). High degree complexity, a highly structural hierarchy and fragmentation of the power system are just a few characteristics attributed to public sector organisations (Thomas & Jajodia, 2004). The transformation brought about by an enterprise system to a public organisation in its bid for modernisation is not a superficial one; it attempts to transform the long-established practices and introduce new ways of 'how things should be done'. Nevertheless, the public sector remains compelled to adopt implementation approach adopted in the private sector (Gulledge & Simon, 2005; Wagner & Antonucci, 2009).

The IS literature has looked into implementation issues in public organisation compared to their private counterparts (See Alves & Matos, 2010; Céu Alves & Matos, 2013; Hurbean, 2008; Raymond et al., 2006; Thomas & Jajodia, 2004). These studies more broadly call to account the specificity of the public sector's context in the introduction of ERP systems. However such studies do not look at long-term implications, particularly enterprise system introduced years ago within the e-government discourse of modernisation (Wagner & Antonucci, 2009). Nevertheless, the numerous unanticipated outcomes of implementing standardised technology have not deterred researchers and practitioners to discover innovative ways to tackle its potential problem. The most recent of those is the development to standardise technologies through the cultivation of existing standards or information infrastructure. The following section engages with this literature that has a particular take on the successful implementation standardised technology.

2.5. Information Infrastructure and the Cultivation of IT Standardisation

A more recent strand of technology standardisation which advocates ICT standardisation through Information Infrastructure (II) as a solution to the expected problems that emerged from implemented standardised ERP. II is not an IT standardisation literature which this thesis directly contributes to. Nevertheless, it should be covered because: (a) II is considered to be the latest culmination of IT standardisation. (b) This section serves basis to compare this thesis conventional ERP as a standard technology with that newly developed II innovative approach to implementing standardised technologies.

Briefly, II mostly originates from Scandinavian-based studies and includes notable works of Hanseth, Braa, Montiero, and Pollock to name a few. They advocate a non-linear evolutionary approach to the implementation of especially large-scale standardised ERP that encompasses inter-organisations both within a nation and beyond (Braa & Hedberg, 2002; Henningsson & Hanseth, 2011). II can be understood differently but is usually defined as "the shared, open, heterogeneous and evolving socio-technical system of Information Technology (IT) capabilities" (Hanseth & Lyytinen, 2010, p. 4). This understanding of technology as an infrastructure based on the interoperability of standards as demonstrated with Internet Technologies (Hanseth, Monteiro, & Hatling, 1996). The logic of II revolves around the cultivation disparate and fragmented IT platforms and application to work together across organisational boundaries. The II theoretical approach tends to have its application in the inter-organisational deployment of standardised technologies. These comprise of industry-spanning EDI networks (Hanseth & Lyytinen, 2010), eCustoms standardisation (Henningsson & Hanseth, 2011), corporate CRM (Ciborra & Hanseth, 1998) but by far II contributions lie in health-related technologies (Aanestad & Jensen, 2011; Braa, Hanseth, Heywood, Mohammed, & Shaw, 2007; Braa & Hedberg, 2002; Grisot, Hanseth, & Thorseng, 2014; Hanseth, Bygstad, Ellingsen, Johannessen, & Larsen, 2012; Hanseth et al., 2012; Pollock & Williams, 2010; Sanner, Manda, & Nielsen, 2014; Silsand & Ellingsen, 2014).

The main argument of II studies centres around that presumption that ambitiously large IT projects that follow the traditional top-down approach are bound to fail. Hence, the national standardisation systems are inevitably bound to face enormous challenges due to increasing complexity of requirements (Aanestad & Jensen, 2011; Hanseth & Lyytinen, 2010). With

every subsequent step taken to contain continuously emerging issues actually adds further to the complexity which the system aims to stabilise (Hanseth, Jacucci, Grisot, & Aanestad, 2006). This recursive process the authors denoted as 'reflexive standardization' which eventually leads to the system's demise (ibid). The problem is inherent in the standardisation process itself where the deployment of 'suite of technologies of formalization' (Toll & Mazmanian, 2016, p. 11) to inscribe practices is essentially reductionist due to its deficiency in capturing and modelling the world into data structured. This predicament of implemented standardised technology is further cumulated when its prescribed functionalities are tightly coupled and its user base encompasses heterogeneous entities (Hanseth, 2014).

So instead of developing a comprehensive standard ERP across organisations through the traditional system development life cycle, a bottom-up approach provides an alternative development approach to standardisation (Braa et al., 2007; Hanseth, 2014; Hanseth et al., 2012). The bottom-up approach to standardising technology is called a *cultivating strategy* (Braa & Hedberg, 2002; Grisot et al., 2014). In brief, cultivation strategy means the slow and incremental changes through improvisations and making due with what at hand to translate the intentions of different actors within broader goals, which in turn can on the long run change the social system. So in other words, cultivation is a bottom up-approach of negotiation and aligning interests to establish standards. This evolutionary standardisation process can endure the emergent local specificities that continuously arise in local settings enabling for scalable information systems (Braa et al., 2007). This allows standards to be enforced yet it can still accommodate technology innovations local specificities that are necessary for its working in various scenarios. The II cultivation approach can range from standardising through networking fragmented technical solutions (Ciborra & Hanseth, 1998; Grisot et al., 2014) to a full-blown evolutionary and experimental design approach (Hanseth & Lyytinen, 2010; Silsand & Ellingsen, 2014).

The difference between II cultivation approach and ERP traditional implementation approach of standardisation is threefold: One is that II are not designed from scratch as is the case in software development. Similar to other forms of infrastructures like roads, they are 'always already present' (Hanseth, 2014, p. 36) and have to be dealt with accordingly. This is to say that II view large-scale standard technology to be an integration of ICT solutions as opposed to being a stand-alone entity (Aanestad & Jensen, 2011, p. 162). This can address the ongoing tension of standardisation vs localisation which has consistently plagued IT projects

throughout its course (Hanseth et al., 1996). Second, designers and project managers are to a large extent ignored or are not as instrumental in the overall conception and direction of the II. There can be hundreds if not thousands of autonomous actors working on their own technical solutions, that is partly guided by the current de facto standards to make interoperable (Hanseth & Lyytinen, 2010). This is in contrast to having project managers who have a holistic outlook on the technology and provides explicit instructions to the team for its development. The last point is with regards to the enforcement of standards. With cultivation strategy, standards emerge to be recognised as the de facto standard through marketing mechanism or power plays (Timmermans & Epstein, 2010). Whereas the ex-ante centralised ERP system is usually imposed by law or executive decision to be the de jure standard of the concerned parties (Hanseth et al., 1996, p. 411). In sum, II views that standardisation technologies are accomplished through the interoperability of existing technologies.

It is this bottom-up design approach to standardisation that the proponents of II contend as being crucial to the successful implementation and use of an inter-organisational extensive system. Many II researchers propose innovative ways of working out with the existing infrastructure. For instance, the process of ‘grafting’ (Sanner et al., 2014) in realising ICT standardisation for Malawi health services. The term grafting is borrowed from the horticulture tradition where the new user requirements (scion of a plant) are built on top of the existing installed base (plant rootstock). As in with the actual grafting process, the grafted technology may flourish or not, but it does serve to be instrumental in the successful implementation of a mobile inter-organisational system in Malawi health care. Others propose a ‘generification’ process to standardisation, which is basically about figuring out common standards and following them (Braa & Hedberg, 2002; Pollock et al., 2007). For example, Silsland and Ellingson (2014) emphasise that high customisation and interoperability of those generic systems within user groups to be crucial for successful implementation of standardising technology. The vendor should be proactively flexible to act on any new request for changes in user requirements. The result of II for technology standardisation is promising as Hanseth et al. (2012) extensive review of in-depth longitudinal studies conducted in 20 health institutions over 20 years concluded that flexible generification to be the most robust standardisation solution compared to the top-down anticipatory standardisation or the integrated solutions.

In sum, the main point of II literature is that imposing a de jure standardised ERP uniformly across organisations or user groups is a thing of the past. Such traditional pursuits of implementing standardised technology are fraught with emergent problems and many of the failure stories are due to their complexity and rigidity. The way forward for massive standardised technology is by accepting the existing infrastructure in place and local specificities of the user groups. The key lies in the flexibility of technology. This is significant to allow for local and emergent requirements to be nurtured and venerated instead of demeaned as legacy or non-best practices. So the main objective of II research is to achieve standardisation by making the existing infrastructure of "patchwork of incompatible legacy systems" (Robey, Ross, et al., 2002, p. 35) to be interoperable to each other.

The next body of IT standardisation literature reviews (and problematises) studies done that are interested in the implementation of western developed standardised technology into the premise of non-western setting.

2.6. Information Technology Transfer of 'Western-centric' Standards

This section is more geared towards the IS standardisation studies that are conducted in non-western countries. More specifically, the IS studies which categorically fall under the ITT (Information Transfer Technology) umbrella. ITT studies are loosely associated with investigating how 'western-centric' standardised technological artefacts are implemented and utilised within a non-western developing country's setting, such as Bahrain. The only few IT studies that have Bahrain as their empirical premise loosely falls under ITT domain. Hence, rendering it pertinent to review and critique the related literature that they ascribe to. The main argument on the critique of this body of literature is to pave the way for an interpretive, practice-oriented approach research to studying standardised technology in a non-western premise.

The focus of ITT research is to investigate the emergent issues and possible solutions that are associated with adopting technologies designed with standards dedicated to a particular western setting in mind. Indeed, despite the growing IS empirical studies conducted in developing countries such as Bahrain, the dominant literature is still focused on the

experiences of the technology's implementation in developed countries within Western Europe and North America (Davison, 2002; Huang & Palvia, 2001; Soh et al., 2000). Such studies either implicitly or otherwise "take point of reference [to be] almost invariably with "the West"" (Shoib & Jones, 2003, p. 440). One of the frequently provided reasons for this is that the enterprise system software was developed by and catered for the technically advanced nations in mind (Shaul & Tauber, 2013). Indeed, the discourse employed by ITT studies is centred around the employability of western 'best practices' and their technologies with its aspiration of "catching up with the technologically advanced rich economies" (Avgerou, 2008, p. 135). These studies draw upon IS models and frameworks to assess the acceptance and diffusion of technologies in the non-western country's settings. Some exemplary ITT studies conducted in the Arab region include the works of Rose & Straub (1998) and (Al-Gahtani, 2003) which implore Davis's (1989) famous Technology Acceptance Model to identify the factors that can impact the acceptance of ICT in the region. The interest lies in determining the possible factors that may or may not have a positive or negative impact on implementing standard systems.

On reviewing IS research conducted in developing countries, the majority are done from a positivist stance (Avgerou, 2008; Walsham & Sahay, 2006). This is also apparent for the ITT research conducted in the Middle East where the overwhelming studies (as high as 90%) presume a positivistic position in their research approach (Shoib & Jones, 2003, p. 443). There is only a handful of IS studies conducted in Bahrain and these studies that follow this approach in studying ERP (Kamhawi, 2007, 2008; Kamhawi & Gunasekaran, 2009) and e-government projects (Ebrahim, 2005). Generally, the research outcomes of such approaches provide descriptive and normative accounts of implementing the standardised technology within an organisation. The impetus of such approaches lies with the desire for a more successful implementation of standard technology in its new setting. Research outcomes general are the development and refinement of numerous frameworks, schemas, and models for this pursuit.

Without denying the value of such studies to academics and practitioners, these quasi-deterministic approaches can be problematic. The following are three points that indicate this: First, when researching standardised technology's adoption in developing countries, it is vital to understand the 'context' they are embedded in. Undermining the local organisational sociocultural practices is bound to face unfavourable consequences when implementing and

using these complex standardised packages in a non-western context (Davison, 2002; Soh et al., 2000). Indeed, institutions in many countries which develop IT projects rely heavily on globalised objectives to be the hallmark 'best practices' in their implementation. But this focus might lead to an a-contextual and a-political approach that can leave unanswered contextual questions (Avgerou, 2001; Davison & Martinsons, 2016). These studies – including ones conducted in Bahrain – implicitly assume that ICT artefacts and associated best practices are inculcated independently from the situated circumstances that exist within the recipient society (Avgerou, 2008). Besides, context is dynamic in nature and also could be interpreted differently (Hayes & Westrup, 2012) and it is extremely difficult, if not impossible, for the designers of technology artefact to account to every possible scenario (Suchman, 1987, 2007). Hence it is unrealistic to look at the implementation of standardised technology without taking into account the historical conditionings and contextualised nuances of its setting. Generally, deterministic IS studies can be useful in terms of addressing questions in regards with: where we are now, what we are trying to achieve and how we can achieve it. However, they fall short in addressing the contextualised engagement, appropriation and emergent practices that technology has in its context-specific settings.

Secondly, the ITT studies that predominantly follow contingency-based cause-effect approach – implicitly or otherwise – interests reside solely on a limited ascertainable factors 'impact' on technology's implementation and use. To understand how this can be problematic, we need to step back and understand the assumptions behind deterministic studies. Such ITT studies generally revolve around conceptualising and operationalising specific factors which deemed as critical for the implemented system's success. These identified constructs are categorised as Critical Success Factors (or simply CSF) which assumed to be integral in determining the success/failure of the system. These studies often attempt to 'reduce' the complexities underlying a standardised system's implementation and use by operationalising construct into specific factors. This lies in their general presupposition that such factors are representative and can be identified, controlled, thereby evaluated independent of their context (Cecez-Kecmanovic, 2005). The research leads to a 'cookbook' listing of factors which hold deterministic capability of successfully implementing the proposed system. Besides, such studies tend to aggregate situation specific cases to ahistorical abstract contingencies where "the researchers construct homogeneity in heterogeneous phenomena by speaking as if all organizations are alike" (Starbuck, 2006, p.

143). These studies are handy to alert us about the possible key factors that are shared across cases (Dwivedi et al., 2015). However, they do not take into account out all potential conditions that contribute to the observed outcome of appropriation of standardised technology.

Third, despite decades of deterministic studies' well-intentions, the failure rate of ERP systems, as well as e-government projects, remain to be relatively high (Finney & Corbett, 2007; Heeks, 2001; Heeks & Stanforth, 2007). Meta-analysis studies put the failure rates to range from 50% to 90% (Saxena et al., 2016) as well as e-government projects for developing countries to be as high as approximately 85% (Alhyari & Alhyari, 2013, p. 83). The failures here vary from missed objectives, loss of revenue, missed opportunities and even as staggering as an outright canning of the whole IT project. Moreover, massive standardisation technologies attempt to encompass and control new emergent issues tend to grow more and more in complexity that reflexively become uncontrollable themselves (Hanseth et al., 2006). So despite the intentions of contingency-based studies to understand and control factors that hamper technology, the outcome of such projects tends to be failure in realising its objectives.

Nevertheless, it is only appropriate to look at such IS projects success/failure figures with some degree of scepticism. For a public sector to undergo the e-government transformation, it has to progress through stages. Each stage acts as a milestone which provides benefits along the way (Layne & Lee, 2001; Moon, 2002) and in ERP development cycles (Markus et al., 2000; Saxena et al., 2016). As indicated previously, e-government projects are perceived differently and hence are considerably vary from an implementation to another. This figure cannot be entirely relied on since e-government studies are dominated by cross-sectional than longitudinal case studies (Heeks, 2002, p. 101). And more importantly, e-government projects are multi-layered fraught with an array of social, economic and political conditions that are continuously shaping the direction of e-government initiatives (Fountain, 2001a) which in turn its success or failure assessment tricky to define and articulate (Glass, 2005). So whether the 'failed' outcome of the technology is merely a temporary phase or just "tip of the iceberg" (Cordella, 2007, p. 266) is a natural part of the ongoing becoming of the digitalisation of the public administration sphere.

The main point of the critique of IT project's success/failure literature is (a) to throw doubt at the figures and (b) to gear the argument towards an alternative way to look at the implementation and use of standardised technology; i.e., by examining it in practice. To

elaborate this point, Cecez-Kecmanovic et al. (2014) eloquently demonstrate how the very same ERP project can be enacted as a success or a failure in relation particular 'agential cuts' performed various network of actors in its appropriation. This approach is more in line with the elusive nature of the success/failure of the standardised technology than being inferred from stakeholders' perceptions of it. In other words, a more practice-oriented research of the working of standardised technology can be insightful in understanding the conditions where it is enacted successful or not within the situated context of its setting. The context here compromises of historically contingent sociocultural conditions of the premises of the standardised technology's deployment. The next section looks at the body of literature that addresses the relation the implication of culture has on technology within ITT studies.

2.6.1. ITT and the 'Culture Factor'

Given the significance of culture conditions in informing the context of the implementation and use of standardised technology in Bahrain, it is warranted to review the IS literature that deals with culture. Hence, this section focuses on critiquing the ITT studies that deal with culture in general, and Arab countries more specifically as they share similar historical and cultural heritage. The main argument here is that critique of this literature signifies a more practice-based approach to culture in dealing with technology can be more informative than the representational approach that is dominant in ITT studies.

What is peculiar to ITT studies is their interest in studying standardised technology engaging with culture. The bulk of such presumes a positivistic stance and hence factor in culture in their research methods (Shoib & Jones, 2003). The general aim of is to articulate how culture and standardised technology are affecting one another. The implicit presumption is that technologies embody set of western-centric standards can be at odds with the unaccounted for sociocultural conditions present in non-Western organisations. Thus the objectives of positivistic approach in ITT studies that deal with culture is whether the cultural differences contribute to the relatively high failure rate of ERP implementation in developing countries. So such studies are interested in ascertaining the positive and/or negative impact their successful adoption of technology (Hill, Loch, Straub, & El-Sheshai, 1998; Khalil, 2011).

More often than not, these studies take culture to be more stabilised and hence the potential to 'impact' standardised technology than vice versa (Leidner & Kayworth, 2006). This line of

enquiry is intuitive given that culture is more entrenched within a society while technology is relatively more volatile in its implementation and use. The studies conducted in Arab countries have consistently discovered that the local cultural impede the successful implementation of IT (Al-Gahtani, Hubona, & Wang, 2007; Hill et al., 1998; Loch, Straub, & Kamel, 2003) as well as e-government initiatives (Al-Sowayegh, 2012; Fidler, Kanaan, & Rogerson, 2011; Kanaan, 2009).

For such representational-based studies, cultural constructs are identified through cultural frameworks that are attributed to a social grouping. The most common methods for determining sociocultural characteristics of the participants in IS studies is from their respective national cultures (Leidner & Kayworth, 2006). Often, research draw upon Hofstede's cultural value dimensions (Hofstede, 1980, 1983) as a go-to cultural framework in studying ICT use in developing countries (Leidner & Kayworth, 2006; Walsham, 2002) and which is especially popular in the IS studies in the Arab region (Shoib & Jones, 2003). The socio-cultural aspects that are characteristic of non-western society are generally articulated as being representative of a region or country's national culture. However, this conceptualising of culture can be troubling due to the following three interrelated points:

First, focusing on the impact or significance of culture on technology often takes a one-directional influence as it is constructed as an independent variable which can be associated with some IT-related outcome (Leidner & Kayworth, 2006). Such an approach generally does not take heed to the potential of technology to play a role in the reshaping of the setting's culture (Coombs, Knights, & Willmott, 1992; Walsham, 2002). It implicitly assumes that all members of a society voluntarily and involuntarily subscribe to the national cultural attributes. This presumption, in turn, entails that individuals of a nation are homogenous and 'cultural dopes' (Garfinkel, 1967, p. 68) who reflexively follow the socially imposed ways of life. Moreover, with the growing globalisation and multiculturalism, it is becoming increasingly challenging to define, articulate and attribute national culture to all organisations within a country. For example, Kitchell (1995) discovered how subtle cultural changes occurred within North American firms as they take Japanese cultural norms as their own in order to stay competitive in the global market. Hence it can be unfair for making a population to be a proxy for another population (Davison & Martinsons, 2016), which is tempting to do so for Bahrain given its dearth of empirical IT studies done there that focuses on culture.

This takes us to the second point where ITT studies that focus on culture assume that boundaries can delineate cultural characteristics within territorial boundaries (Myers & Tan, 2003). This attribution of culture tends to generalise and aggregate individuals of a social grouping into pre-defined collectives for comparative research purposes. It can be regional, national or organisational (Leidner & Kayworth, 2006). Irrespective of boundary setting of culture, it is unfair to equate the differences of individual perspectives and behaviours within a cultural domain to be representative of the decision makers in ICT project implementation to transform public administration. Individuals of an organisation come from different backgrounds and assume subjective positions which vary considerably from others within the same firm. Besides, in the increasingly globalised world, ideas and products frequently cross organisational and national boundaries (Jreisat, 2009). Besides, many Arab citizens (not excluding myself) study abroad and bring in notions of modernity to the workplace (Common, 2008). Indeed, when it comes to culture deterministic studies, it is "unwise to assume any aspect of reality is quantifiable by a single measure" (Ford, Connelly, & Meister, 2003, p. 22). Even when drawing on Hofstede's culture value dimension, there are potential discrepancies in predicted behavioural patterns and the subscribed cultural background, showing that the relationship between culture and individual's behaviour is a complex matter (Winch, Millar, & Clifton, 1997).

Third, representational approaches to technology in non-western context presumes implicitly assumes cultural aspects to be more likely culpable in effecting the successful implementation of technology. Paradoxically, it somehow seems as if it is legitimate to assume that the "West" to be presented as dynamic, ever-changing and a suitable context for successful IS implementation, whereas whole regions, such as the Middle East, is essentially inflexible, difficult and inimical to the introduction of technology (Shoib & Jones, 2003; Strong & Volkoff, 2010, p. 744). In essence, the closer the degree of a society's culture to the west, the more likely the standardised system 'fit right in' (Hawari & Heeks, 2010). The implicit assumptions here is that Western technology vendors have an "image of itself in every design it produces" (Conway, 1968, p. 30) and that the closer a society culturally with the West, the more likely the technology will be adopted. For example, it is predicted that a society which has been rated high 'uncertainty avoidance' (Hofstede, 1980), such as the Middle Eastern societies (Danowitz, Nassef, & Goodman, 1995; Hasan & Ditsa, 1999) including Bahrain (AlQahtani, 2013) are more likely to avoid adopting information technology. The rationale behind this is that the high uncertainty avoidance societies tend to

be more risk-averse. While such studies can be insightful to alert us to the cultural differences and its potential implications to IT (Walsham, 2001, p. 188, 2002, p. 373), such a universal approach to culture is still problematic due to reasons articulated previously.

The main point of this critique of ITT studies that follow representation approach to culture is not to shed doubt on culture's potential influence on the implementation and use of IT. However, following a representation approach to culture implicitly assumes that cultural aspects to be relatively stable as it is attributed to a social collective. Instead, the focus should be on how such culture conditions are reconfigured *in practice* with regard to the technology appropriation. We should not forget that culture is generally "contested, temporal and emergent" (Clifford & Marcus, 1986, p. 19). Hence culture is not inert, independent, locatable to individuals or groups (as articulated by Hofstede dimension of culture), but should be considered to be a phenomenon which is emergent in practice (Myers & Tan, 2003). This allows us to step away from the restrictive implication that non-western societies are relatively inert and possess the inherent tendency to obstruct rather than reconfigure their own practices in regards to the introduction of technological artefacts (Bada, 2002; Madon, 1992; Walsham, 2002). In essence, the basic argument here boils down to: culture should be treated as a practice and not an attribute.

Thus this research's position is set to forego the notion of 'western-centric' systems (Walsham, 2000) that implicitly implies an imposition of western cultural ideals to a non-western settings. Such theorisation can be unsettling as it somehow implies that technologies are embodied with 'rational' ways and hence is invariably bound to be resisted by the non-western context on the basis of their inescapable cultural nature. They would gauge the success of the system based on the compatibility/incompatibility of the 'western' inscribed ideals (cf. Jreisat, 2009). Cultural attributes (usually identified through national culture) are viewed as impediments to the ITT in the Middle East. Incidentally, the IS literature that critique such approach as standardised technology is never 'adopted' without experiencing improvisations within the 'western' context itself (Ciborra, 1999, 2000; Elbanna, 2006; Orlikowski, 1996). Hence, implementing an intrusive system such as ERP is bound to be subject to resistance – whether the implementation site happens to be in a Western context or otherwise. Irrespective of where the ICT is appropriated, we should look at the resistance to technology as a processual and dynamic phenomenon. What is required is a more in-depth investigation on the *how* do sociocultural aspects of a society or organisation contribute to the

working or impediment of technology. There are excellent studies that are geared to this end (See Bada, 2002; Bertels, Howard-Grenville, & Pek, 2016; Madon, 1992; Martinsons & Davison, 2007; Walsham, 2002) which take both culture and technology to be dynamic and can be shaped and reshaped in practice. This thesis attempts to follow in their path to provide a practice-oriented, rich narrative of the role of cultural conditions in the implementation and use of standardised technology in the Bahraini context.

To conclude this section, the dominant representational approach to researching cultural conditions that govern the adoption of standardised technology such as ERP in a country such as Bahrain is not helpful. First, due to the lack of ERP studies conducted in Bahrain, the nation is concatenated with the whole region of Middle East, Arab or Gulf states. So variance-based studies conducted in other Arab context juxtapose their results to Bahrain (Hill et al., 1998; Loch et al., 2003) given that the region shares common historical and cultural heritage. However, the implications of such studies involuntarily "sweep the subtleties of cultural difference under the universal carpet" (Walsham, 2001, p. 188). Secondly, even though Bahrain does share similar sociocultural and economic conditions with other members of the GCC, it has consistently been ranked as the highest e-government index among the Gulf states as well as the Arab region (UN, 2010, 2012, 2014, 2016). By extension, based on the variance-based studies, the rest of the Gulf States should rank close to each other. However, this is not the case for Bahrain given its UN-sanctioned ranking in relation to its neighbours. Additionally, these studies fail to provide a rich account of the underlying conditions that explains Bahrain's aggressive ICT adoption as detailed in the previous chapter (Section 1.2). What is the alternative? The alternative is embracing the less dominant interpretive approach which is more in line with practice perspective to account to the processual, temporal, contingent nature of culture in lieu with technology use (Orlikowski, 2010). It has been the clarion call echoed from early taxonomical IS studies (Orlikowski & Baroudi, 1991) till recent ones (Saxena et al., 2016).

The next chapter argues how a practice stance can be more profitable in understanding how standardised ERP can be made to work within the specific setting of Bahrain's public sector. Before doing so, it is imperative to review the literature of the particular cultural phenomena of Wasta, which is the cultural social capital prevalent in Bahrain's everyday life and has implications on standardisation through technological means.

2.6.2. ITT and the Middle East's 'Cultural Problem'

It is unfeasible and also not within this research's scope to cover in depth all the cultural issues. Nevertheless, there is the particular cultural phenomenon of Wasta which is ubiquitous to Bahrain and the Arab countries in general which is noteworthy of being reviewed. The impetus for addressing it here is because it emerged to be central to the understanding of the implementation and use of Bahrain's national standardised ERP system. What makes Wasta especially pertinent to this research is that one of the objectives of the Bahrain's national ERP system is to eliminate or at least repress its occurrences. The ERP system is meant to uphold the general 'best practices' and standardise the HR processes across the government departments are in direct contestation with local sociocultural practices of the country. This warrants exploration of the relevant literature and how it is related to standardised technology.

Briefly, the term Wasta is broadly defined as "using networks and connections for favourable outcomes" (Khakhar & Rammal, 2013, p. 584). There is no English synonymous word that fully describes it (Lackner, 2016, p. 35) but it is described as a "significant form of Social Capital" (El-Said & Harrigan, 2009, p. 1235). So despite Wasta can be articulated as a form of social capital, there are three points that characterises it: First, Wasta is generally rooted in family connections and tribal societies (Karolak, 2016) that existed in pre-modern times due to the absence of codified law (Brandstaetter, 2014, p. 147) and weak institutions (Kropf & Newbury-Smith, 2016a). To put it simply, the more affluent individuals support others who are less so. It is a form of normative obligation of kin to aid one another. However, it can also encompass professional and business networking as well (Hutchings & Weir, 2006; Loewe et al., 2009). Secondly, Wasta is generally characterised to refer to cashless interactions that often involves three parties (Lackner, 2016) who are the provider, intermediary and the person in need. Though it can involve two parties as in social capital, the point being that Wasta does include mediation to be central to its meaning and facilitation. Third, Wasta is also used to refer to either an individual or an action. To unpack this, Wasta is said to be the individual who mediates/intercede, or the action of mediation/ intercession itself (Cunningham, Sarayrah, & Sarayrah, 1994). The first is associated with the intermediary

person to be the Wasta, where an intermediary will resolves interpersonal or intergroup conflicts, which deemed to be an admirable role in bringing to terms families, communities and tribes. On the other hand, the later understanding of Wasta often referred to the Intercessory Wasta. This is more centred on the action and implication of Wasta where the influential people intervene on behalf of a particular person to possibly gain certain privileges (Cunningham et al., 1994). One can intuitively relate to how these characteristics of Wasta are historically rooted in traditional tribal communities and has in modern times found its way in the workplace (Karolak, 2016). It is this intercessory or action-centred understanding of Wasta we are interested in and pertinent to my research. For here on out, the term Wasta is used to refer to the intercessory form of it.

As mentioned previously, Wasta or informally denoted as 'Vitamin Wow'[2] is not exclusive to Bahrain (AlQahtani, 2013; Karolak, 2016), but is widespread in the Arab countries. It is prominent in Jordan (Cunningham & Sarayrah, 1993; Kanaan, 2009; Loewe et al., 2009), Saudi Arabia (Mellahi, 2007), Kuwait (AlAwadhi, 2007), United Arab Emirates (Almulla, 2012), Tunisia (Yahiaoui & Zoubir, 2006), Yemen (Kropf & Newbury-Smith, 2016), Egypt (Mohamed & Hamdy, 2008) among other Arab countries. Although the Arab nations exhibit diversity in their management and government administrations, they are considered to be somehow culturally homogenous (Hutchings & Weir, 2006) and hence Wasta is said to be prevalent in Arab countries. In comparison studies, there are several elements of similarities and overlapping characteristics with other forms of cultural social capital, such as the Chinese Guanxi, Brazilian Jeitinho, Russian Svyazi and Old Boy networks in Western societies (Hutchings & Weir, 2006; Ramady, 2016; Smith et al., 2012). The point here is that social capital does exist in other countries and cultures, including in the west (Kwon & Adler, 2014; Ramady, 2016; Schuller, 2007; Schultze & Orlikowski, 2004). It happens that Wasta is relatively more prevalent in Arab societies and is more explicitly discussed than other forms of social capital (pulling string from old school ties in the UK), and as the case findings show that Wasta is implicated in the technology working in public administration.

[2] Wow here is not the English term of expression of astonishment or admiration, but the last letter of the Arabic letter 'و' which stands as first letter of the word Wasta. The expression of Vitamin Wow is a pun-intended parlance on the seemingly panacea effect it has in everyday life.

In the Arab region and especially abroad, the term Wasta is cultivated to attain a negative connotation which can be understood as favouritism, nepotism or even cronyism. One can ascertain this from Loewe et al., (2009, p. 55) definition of Wasta to be the act of "asking for and/or benefiting from preferential treatment instead of going through official channels". Indeed it is associated with corruption in Arab countries that results in economic costs (Al-Saleh, 2016; Marktanner & Wilson, 2016). In organisational work, Wasta is perceived to grant undue favouritism to some on the expense in many organisational aspects including HR in hiring (Mellahi, 2007) and performance appraisal (Almulla, 2012) as well as circumventing bureaucratic procedures (AlQahtani, 2013; Karolak, 2016). Indeed, it is stated that Arab countries which exhibit more tolerance to bribery as in Arab republics are more likely to abuse Wasta for personal gains in contrast to Arab monarchies which disdain bribery (Marktanner & Wilson, 2016). Other observe that individuals are more likely to share knowledge with their family and kin relations than to their respective organisational affiliations (Hill et al., 1998). Hence what is observed consistently among organisational studies is that they are generally apprehensive of Wasta implications to the overall organisational productivity and work performance.

Although Wasta is often perceived to be a form of corruption, it is also recognised by some authors to be beneficial as it provides to the “individuals a sense of belonging to a social entity that provides unconditional acceptance and assistance to the novice in solving problems that are commonplace to someone more experienced” (Cunningham & Sarayrah, 1993, p. 191). It is used as a mechanism to resolve local and community disputes as well as in the negotiation of scarce resources. Others contend that it is utilised to empower women for career advancements in patriarchal societies (Al-Hussain & Al-Marzooq, 2016). Wasta patronage also tends to be more apparent to foster trust through informal ways in the absence of strong institutions in place to do so (Brandstaetter, 2014). For instance, it plays a pivotal societal role as a form of safety net or social security when the existence of a formal and effective institutional welfare system is lacking (El-Said & Harrigan, 2009). In modern bureaucracies, Wasta can be a means for citizens to obtain their entitlements which there are unable due to maladministration (AlQahtani, 2013). These findings about Wasta foster the value of maintaining social networks based on mutual trust and obligations to one another. This leads to reciprocity among the individuals and groups, which extends beyond kinship relations of family, but to friends and acquaintances.

Despite these possible benefits, there is a form of consensus that Wasta is perceived to negatively affect the organisation's modernity progress (Al-Saleh, 2016; Jabbra & Jabbra, 2005; Jreisat, 2009; Mohamed & Hamdy, 2008). Hence there is an urge within the literature to regulate organisational rules and centrally controlled (Karolak, 2016, p. 157; Kropf & Newbury-Smith, 2016) and establishing independent anti-corruption committees (Al-Saleh, 2016). For Arab states to be a contender in the era of globalisation and not just a mere subject of it (Jabbra & Dwivedi, 2004), they should embrace good governance and professional managerial values of "accountability, performance evaluation, transparency and ethics" (Jreisat, 2009, p. 37). Other saw potential in the advancement of ICT and social media to pose a serious challenge to the potency of Wasta (Weir, Sultan, & Bunt, 2016). Although there are no clear determinants of what can motivate an individual to resort to Wasta in organisations (Gold & Naufal, 2012), one should be aware of its potential implications in the workplace (Fidler et al., 2011). Irrespective of the merits and demerits of Wasta is, it is here to stay in the Arab world and unlikely to disappear anytime soon (Al-Saleh, 2016; Kropf & Newbury-Smith, 2016). Hence researchers should be aware of its workings when engaging with organisational studies.

With a few notable exceptions (Fidler et al., 2011; Kanaan, 2009), there is a dire lack of studies that look at the interplay of technology with local Wasta culture. Wasta has been regarded to be a barrier to modernity through ICT means of e-government (Fidler et al., 2011). This is parallel to non-technological focused studies that observe Wasta to be a perpetual hindrance that holds back modernity in the Arab region (Al-Hussain & Al-Marzooq, 2016; Al-Saleh, 2016; Jreisat, 2009; Mohamed & Hamdy, 2008). The empirical data is centred around the perceptions of individuals with regards to Wasta and its possible effects on IT projects in general (Fidler et al., 2011; Kanaan, 2009). The reports suggest that the unfair hiring or assigning of unqualified individuals for IT projects and the winning of government contracts for IT projects to be the ways which hinder technology work (Kanaan, 2009, pp. 122–6). Others see that ICT advancement and social media can pose a challenge to Wasta by public calling and shaming (Weir et al., 2016). However, these limited studies do not provide a clear account of how Wasta can accommodate or impede technology itself in practice. What is required is a more practice-oriented investigation on how does Wasta intermingles with the actual implementation and use of standardised technology. In short, we should investigate the role Wasta with regards to the implementation and use of standardised technology that is beyond the perception of individuals i.e., through practice.

To conclude this chapter, the main argument of it is to establish the need for practice-based studies which take into account the contextualised conditions that govern the implementation and use of standardisation technology as a mode to foster modernity in Bahrain's government. This literature is to point out the severe lacking of interpretive studies conducted in non-western context, especially in Bahrain. With the exception of a handful of CSF studies on ERP in Bahrain (cf. Kamhawi, 2007, 2008; Kamhawi & Gunasekaran, 2009) and e-government models (Ebrahim, 2005; Ebrahim & Irani, 2005), there is virtually no research about the appropriation of ERPs in Bahrain. Moreover, the rest of the studies conducted in the Middle East are overwhelmingly approached from the positivist stance (Shoib & Jones, 2003). Even those studies perpetually extrapolate their findings to encompass the whole of Bahrain on account of its geographical station and similar cultural heritage. Besides, the majority of the less dominant interpretive e-government studies conducted in developing countries in general do not have first-hand contact with the participants of the study (Heeks & Stanforth, 2007). In essence, this study is positioned away from codifying culture into manipulated constructs and towards interpreting culture to be processual and emergent in practice. To do is it is the direction of this research to subscribe to a 'thick description' (Geertz, 1973) of the generated practices that emerged with regards to working out a standardised national ERP in Bahrain. This research is to answer the repeated calls of IS (Orlikowski & Baroudi, 1991; Heeks & Bailur, 2007) and more specifically in developing countries (Heeks & Bailur, 2007; Walsham & Sahay, 2006) and the Arab region (Shoib & Jones, 2003) to study standardised technology from a "more relevant contextualist accounts than the currently prevailing studies that assess progress of innovation against assumed desirable values and behaviours" (Avgerou, 2008, p. 141).

2.7. Summary

This chapter ventures to review the current standing of the IS literature with regards to standardised ERP technology in modernising the public sector within non-western context. Despite the promises of efficiency, organising and control that standardisation through ICT-means can provide, the literature demonstrates that the outcome of implementing standardised technology to be fraught with problems. Moreover, the touted 'best practices' are not necessarily representative of the best standards but is negotiated through ongoing power

plays. Yet, developing countries, including Bahrain, are eager to achieve modernity through standardised technology for the sake of international recognition and capitalise on efficiency gains. Indeed, numerous IS studies towards understanding the factors and conditions that impact the successful implementation and use of standardised technology. Among those conditions are local sociocultural practices of the locale of the technologies deployment.

However, there is a lack of clear account that demonstrates how the local conditions enact the standardised system in developing countries such as Bahrain. This is especially the case for Arab regions in general which take a positivist stance (Shoib & Jones, 2003). Moreover, there is hardly any studies provide a clear account of how standardised IT is shaped and reshaped by the cultural phenomena of Wasta. Besides, the handful of studies conducted in Bahrain take a positivistic stance that does not account for the actual practice of standardised technology accomplishment in the milieu. The comes despite the fact that Bahrain's government is assessed to be high in ICT-maturity (UN, 2016). What is suggested here is a practice-based research approach that investigates the local specificities involved that enact technology of standardisation in Bahrain. A practice-based approach can be productive in exploring the nuances and particularities that make a formalised standard system work within the situated context of Bahrain's public sector.

The next chapter explores the subscribed theoretical standing that can be helpful for such research pursuit, which covers the sociomateriality as this study's choice of practice approach in combination with Goffman's dramaturgical analysis.

3 Practice Theory: Sociomateriality and Goffman

The purpose of this chapter is present the ontological assumptions and theoretical position underpinning this research. The first section (3.1) outlines the main principles of practice theory in general. The purpose is to argue that the practice theory can serve as a valid and productive mode of enquiry into studying standardised technology in relation to local conditions of its implementation and use. Also, the section outlines the main principles of what constitute a practice theoretical approach in research. The next two sections (3.2 and 3.3) look at the question of agency as it is being conceptualised within IS domain and how a sociomaterial relational ontology take on it can be helpful in its reconceptualisation. In brief, traditional socio-technical based studies attempt to identify agencies and attribute them to the social or technical actors to explain the phenomena at hand. This research will have a different take on this relationship by adopting the sociomaterial emergent view where the social and technical are entangled which situates agency within practice. The following section (3.4) lays out the main tenets of Goffman's dramaturgical analysis. The final section (3.4) outlines the tenets of a sociomaterial take of Goffman. It demonstrates how a

sociomaterial non-dualistic reading of Goffman's work can provide productive analytical tools for studying technology in an organisational setting (Section 3.4).

3.1. Practice-based Approach to Study Technology

The main focus of this section is to articulate the assumptions of practice-based research and how it affords a productive alternative to study standardised ERP and its enactment within the local conditions of its setting. A practice-based approach can be productive in understanding particular nuances of modernisation of public sector that emerge following the introduction of an ERP best practices within a Bahraini context.

Over the years, many practice theories have resulted in different understandings of what practice-based study really is (Reckwitz, 2002; Tavakoli & Schlagwein, 2016). Practice theory is applied across many fields of study and hence subscribes to various assumptions, methodologies and vocabularies (Orlikowski, 2010). Due to its broad application, there is no unified definition of what practice-based research is (Gherardi, 2015). For the purposes of this research, practices are understood as the "embodied, materially mediated arrays of human activity centrally organized around shared practical understanding" (Schatzki, Knorr-Cetina, & Savigny, 2001, p. 11). 'Practice' itself is considered to be the primary unit of analysis (Rouse, 2007, p. 499). The application of the term practice covers activities ranging from the mundane, everyday, routine work life to the activities of structured institutional settings. The focus on work practices as the subject of interest allows us to "foreground the importance of activity, performance, and work in the creation and perpetuation of all aspects of social life" (Nicolini, 2012, p. 3). The 'practice turn' is not to address the problems of practical engagement (i.e., Praxis), but to gain a theoretical understanding of doings and actions in the phenomenon of interest (i.e., Praktik) (Reckwitz, 2002).
A practice-based approach provides a more viable alternative way of conceptualising than the traditional scientific rationality approach (Sandberg & Tsoukas, 2011, 2015) which is implicitly or explicitly behind IS representational studies. Feldman & Orlikowski (2011) present some of the common principles which are shared by other practice-based research.

The first principle of practice theory is that the practice itself is consequential to the world (Schatzki et al., 2001). Practice theorists attempt to foreground the human agent in the social

work, affirming that human actions have consequences on the structures of the social world. For example, Giddens (1984) uses structuration theory to look at how human agent activities reflect back on the structure, which in turn constrains and facilitates their agency through norms and regulations. Bourdieu (1977) is another prominent practice theorist who postulated that individuals of varying habitus interact with each other in the field. Goffman (1959, 1961) takes a more dramaturgical stance where the participants of an encounter perform in a manner that is dependent on the setting and audiences. Despite the range of variously nuanced assumptions underlying different practice theories, they share in the notion that the practice under study is consequential both on the actors and on the environment.

The second principle is the rejection of the subject-object dualism (Reckwitz, 2002). By doing so, practice theory recognises the intrinsic relationship which each entity has with the others. In practice-based research, what matters is the very action, activity, event, routine, interaction, encounter or performance has on the individuals and groups. In essence, it takes heed of the dynamic constitution of the phenomena (Feldman & Orlikowski, 2011; Tsoukas & Chia, 2002). This is in contrast to the representational studies which assume a separate subject-object epistemology and that the subject can somehow, through intellectual activities, capture and master the object (Sandberg & Tsoukas, 2011). Even what we presume to be stable and independent structures of society are "constantly recreated by the same means whereby they express themselves" (Giddens, 1984, p. 2). What we assume to be of social regularity is continuously 'in the making' i.e., of ongoing accomplishment and thus is being produced and (re)produced with every action (Feldman & Orlikowski, 2011). Hence the rejection of the dichotomy of subject and object is more true to the processual nature of everyday work activities.

The third principle, which follows from the previous one, is the concept of relationality or mutual constitution. An actor or action cannot be understood without the context or its relation to other actors or actions. This assumption of the practice theory stems from the Heideggerian notion of being-in-the-world (1996 [1927]). What is particularly useful for studying IS practice is the notion of ready-at-hand or what Dreyfus interprets as 'absorbed coping' (1991, pp. 69–72). In this state, we (actors) are deeply immersed in practice and are constantly responding to emergent situations (Riemer & Johnston, 2017). We do this without realising it. It is only when we are disturbed that we shift from an entangled being with the world towards a more representational view of the world. We begin to single out

entanglements, like people, tools, and other elements, and shift towards an epistemological view of subject-object relations. Yes, assuming an analytical position is at times useful to engage with the phenomenon at hand. However, practice theory pushes us to be sceptical of the actual nature of the world, i.e., not stable and well-defined (Feldman & Orlikowski, 2011; Introna, 2013).

The fourth and final principle is the historical rooting and a shared understanding of practices among social entities. This principle is particularly productive to understand ERP standardisation by examining how we produce and reproduce the formalised rules it is associated with. According to the practice approach of rule-following, which goes back to late Wittgenstein's (1958) work, rules enable people to do tasks. According to the cognitive view, these rules are internalised by actors. But knowledge of the standardised rules does not guarantee they will be followed accordingly (Feldman, 2004; Feldman & Pentland, 2003). Hence supplementary rules are introduced either to clarify or reconfigure the initial rule. It is practically impossible to design a standardised system to account for every possible situation (Hanseth et al., 2006; Suchman, 1987, 2007) because such a list of rules becomes prohibitively inconvenient to recall and follow through. Here comes Wittgenstein (1958) who argues that following the standardised rules is a practice we do without considering them in-depth or having a complete interpretation of their meaning. We do so by having a common understanding of how to act upon espoused standardised rules. For example, when we see a road sign, we do not stop to contemplate its meaning, we act. We act in ways we are trained for or accustomed to. We always respond like this when we engage in taken-for-granted background practices (Sandberg & Tsoukas, 2015). It is only when we do not share a common understanding of the situational practice that we need to explain it to ourselves and others. Practices are accomplished within our shared knowledge which remains "largely implicit and largely historically-culturally specific" (Reckwitz, 2002, p. 253). Hence practice-based research allows us not only to capture how the users interpret the system's 'best practice', but the practices that are constitutive of the performance of such 'best practices'.

Moreover, a practice-based approach in studying standardised technology allows us to be mindful of the temporal flow of its enactment. Indeed, practice-based IS literature demonstrates how the standardised ERP is constantly being figured and reconfigured in its appropriation over time (Hanseth, Ciborra, & Braa, 2001; Markus et al., 2000; Orlikowski, 1996; Wagner et al., 2011; Wagner, Newell, & Piccoli, 2010). For instance, Boudreau and

Robey (2005) examined in a case study how working out a rigid vanilla developed ERP has gone through phases of inertia resistance to improvised learning to use it and finally to reinventing its appropriations in ways which are not in accordance with the designers' expectations. Orlikowski (1996) showed how situated changes over two years gradually transformed the organisation following the implementation of a new system. In short, practice theorists sensitise us to the temporal effect of technology on the organisational setting. This one of the reasons why practice-based approaches have grown in popularity within the IS discipline.

With regards to the role of local sociocultural conditions in relation to the adoption of standardised technology (which is the general focus on this study), the practice approach is insightful to foreground the dynamic and processual constitution of their engagement. To demonstrate this point, let us look at two IS studies which research how local socio-historical conditions are accounted for in the ICT-based transformation of the organisation through standardisation of practices Bada (2002) and Bertels et al. (2016).

In Bada's (2002) case study, he examines the ICT mediated transformation of a national bank (denoted as Wema) following its privatisation. To survive in the globally competitive banking sector, the bank underwent massive BPR (Business Process Re-engineering) throughout their operations. Before transformation, the bank's operating style was more of an 'armchair banking' where customers received whatever services the bank offered. Following changes, customers demanded the same level of quality services as from a privately-owned bank. However, the researcher points out that two cultural practices lingered, albeit re-appropriated in their enactment. One is the pre-existing HR policy that ensured job security to the employees of the bank (which they labelled as the 'Wema' family). This went against the wishes of the proposed BPR, which recommended the laying off of those employees without a university degree. To preserve the 'Wema family', the bank rotated their employees instead. Another cultural particularity of Nigeria is what the author calls 'Man know man' practice. This involves a customer forming a rapport with bank employees to overcome tedious processes in return for some form of gratification. Following the BPR, some customers still used 'man knows man' to skip queues but their cases were handled away from the prying eyes of general customers.

The other insightful case study is the research conducted by Bertel et al. (2016) on a Canadian oil producer which internalised the culture of the 'Wild West'. Aiming to improve efficiency and achieve regulatory compliance, the company embarked on a mission "for reducing operational risk by standardising procedures and focusing employees on consistent, repeatable behaviours." (Ibid, p. 574). The espoused standardised routines conflicted, however, with the two organisational cultural traditions shared by the employees. One of such cultural parlance is the phrase '*get 've with*' which is about getting the work done as soon as possible with or without following the formal standard procedures. The other cultural tradition is the 'follow the leader' mentality where the employees obey their superiors, even if they resent them. To resolve the conflict between the espoused procedures and local culture, the employees resorted to cultural strategies which the authors denote as 'cultural shielding' and 'cultural shoring'. The first is about ignoring the compliance requirements as they perform their work. The other describes the extra work done to ensure that they appear adhering to the required procedures.

Although the above two studies are conducted in very different empirical settings (Nigerian bank and Canadian oil company) and contribute to different literatures (globalisation and routine respectively), their practice-based approach implies two aspects with regards to culture. One is that culture is not a pre-defined attribute or property that can be identified, separated and scrutinised by the masses. Rather it is revealed and made meaningful as it is enacted in situ. It is through specific interaction that such sociocultural performances unfold. This is to say that for a practice-based approach to studying change through technology it is helpful to engage with the culture's dynamic nature. Indeed, individuals are not aware of their culture until they "encounter a counter-culture" (Leidner & Kayworth, 2006, p. 373). This reminds us of the ready-at-hand notion of Heidegger, where culture becomes meaningful in a situated context when it is observed in relation to the technology (Riemer & Johnston, 2017).

Secondly, there is no point in an enquiry which starts from a context-independent position. The contextualised sociocultural practices that emerge are produced and reproduced with regards to the appropriation of the invasive standardisation of technology. This entails that sociocultural practices that predate the formalised system are not static and self-contained but, in very specific ways, get folded into the actions that enact the system. Introducing a new system does not merely disrupt what is going on, but is enacted within its context recursively where the "actors [are] constantly reweaving their webs of beliefs and actions to

accommodate new experiences" (Tsoukas & Chia, 2002, p. 580). In both cases, the practice approach allows us to observe the activities that resist or accommodate the 'best practices' (Pickering, 1993, 2010) in milieu. Indeed the practice theory allows us to account for the richness of the actions involved in accomplishing a national ERP, which is not possible in other modes of enquiry, such as the IS variance-based approaches (Robey, Anderson, & Raymond, 2013).

Out of the broad practice theories, this research draws upon sociomateriality and Goffman's practice-based approaches to analyse the case findings of the thesis. Before outlining the main tenets of these two approaches, it is pertinent to deal briefly with the question of agency.

3.2. Agency within Technological Object and Social Subjects

The role of technology within organisations has extensively been researched during the last four decades. The interest stems from trying to understand how technological artefacts are designed and how they are articulated in practice. This section will touch upon the dominant assumptions underpinning the traditional and dominant socio-technical IS studies. It is set up to be a starting point to introducing sociomateriality ontological positioning for studying IS. It is thus neither a comprehensive, sequential description of technology use theories, nor a detailed taxonomical account of these theories.

My intention here is merely to acknowledge the theoretical approaches dominant in IS literature which paved the way for my own understanding of the processual nature of technology. The structure – or the journey – of this section is loosely inspired by Orlikowski and Scott's (2008) seminal work. The aim here is to portray how a sociomaterial ontological position can be understood in relation to the relatively more-established socio-technical approaches.

3.2.1. Moving Away from the Technical and Social Determinism

Since its infancy, IS research field often focused on understanding how technology influences everyday work (George & King, 1991). Early IS studies examined the "impact" of technological artefacts can have on both the organisational level (e.g., size, performances, structure) and the individual level (e.g., productivity, job satisfaction) (Orlikowski, 1992). The interest lay in identifying the key aspects of work productivity resulting from imposing a standardised technology artefact on the whole organisation. Some of the classic works includes Woodward (1958), Mann and Williams (1960), Whisler (1970), Winner (1980), Davis (1989) among others. This rationalistic conceptualisation postulated technology to be an 'exogenous' or external force that can drive and/or heavily constrain individual actions and organisational behaviours (Grint, 2005, p. 283; Markus & Robey, 1988, p. 585). These studies enlighten us about the disruptive nature technology has on everyday organisational work practices (Manning, 1996).

However, the assumption that technology is the primary source of change is problematic. First, it postulates the organisation's work to be profoundly contingent on the technology introduced. This theoretical position undermines or underplays the historical, social and cultural aspects that are constitutive of the shaping of the organisation and its employees (Orlikowski, 1992, 1996; Zuboff, 1988). Secondly, this approach presupposes technology to be an objective and value-neutral artefact which can impose its own rational logic on the organisation (Cecez-Kecmanovic, 2005, p. 26). In other words, it does not take into account the political and discursive work that goes into its design and development (Yeow & Sia, 2008). Third, these technology quasi-deterministic approaches implicitly give the misguided impression that the interaction between technology and individuals and organisations primarily acts in a unidirectional fashion (Mueller, Renken, & van den Heuvel, 2016; Orlikowski & Scott, 2008). In fact, many IS studies do not observe such a strong impact of the technology on the organisation (Boudreau & Robey, 2005; Markus & Robey, 1988; Robey, Boudreau, & Ross, 2002). Indeed, there are those who suggest dropping the phrase "impact of technology" in order to avoid the deterministic presumption of technology's capability and to refocus on the social aspect that shapes the technology (Taylor, 1993, p. 184).

From the 80s onwards, IS researchers increasingly approached the study of technology from a social angle (Robey et al., 2013). Their theoretical perspective considers technology to be the product of human design and appropriation. This stems from associating technology as a form of social structure. Hence technology is considered to be 'epiphenomenal' since social structures are constructed by individual actions and perceptions (Jones, Orlikowski, & Munir, 2004, p. 300). This conceptualising shifted to focus to socially attributed aspects of organisation in shaping the implementation and use of technologies. These include political conditions that shape the technology's design and use (Kraemer & King, 2003; Markus & Keil, 1994; Myers, 1994; Wagner & Newell, 2004; Yeow & Sia, 2008). These social constructionists drew inspiration from the sociologists of science (Bijker & Law, 1992; Pinch & Bijker, 1987; MacKenzie & Wajcman, 1985) who were interested in how technology was made meaningful within the social and organisational settings. It is this attempt to go beyond the technology that opened up compelling avenues to explore the organisational aspects that contribute to the shaping of the technology.

However, this social determinism approach proved to be troubling for various reasons. Firstly, most commonly, it was criticised because the researchers adhering to it predominantly ascribed agency to the social characteristics in their technology studies. The emphasis on the social context and the complexities of such an approach often caused researchers to lose sight of the unit of analysis i.e., the technology; which is what these studies sought out to address from the outset (Button, 1993, p. 12). The high-level analysis rendered the role of technology to most be absent from their narratives (Leonardi & Barley, 2010). Indeed, there are studies that focus on human agency implying that IT can be constructed, interpreted and worked out through human actions, irrespective of the technology's features (cf. Boudreau & Robey, 2005; Manning, 1996).

Second, the direction towards studying socio-technical systems has resulted in these scholars dropping off the materiality of technology in their study. This is in contrast to earlier socio-technical studies (Mumford & Weir, 1979; Trist & Bamforth, 1951) that did take into account the materiality of the technology as part of the organisational work. Robey *et al*. (2013) attributed the reason behind the dropping off of technology's materiality to the influence of Perrow's (1967) seminal work that freed the term 'technology' from its hardware or physical connotations. This allowed technology to be openly interpreted and engaged in an abstract manner that conceptualised technologies as "fundamental social objects" (Orlikowski &

Barley, 2001, p. 148). Hence the focus lay predominantly on the social perspectives and intentions that shape the technologies while underplaying the technology (or material) embeddedness in their design and use (Volkoff, Strong, & Elmes, 2007). However, there have been attempts to reach a compromise between those two deterministic extremes, as we shall see in the next section.

3.2.2. Gliding over the Interplay between the Social and Technical

Regarding the issue of agency numerous attempts were made to reach a middle ground between the technology and social deterministic extremes. Notable IS scholars (George & King, 1991; Markus & Robey, 1988; Orlikowski, 2000; Rose, Jones, & Truex, 2005; Volkoff et al., 2007) stated that agency could lie in both. They distanced themselves from the deterministic stance of the social and technical studies (Orlikowski, 2000; Orlikowski & Barley, 2001) which were categorically grouped as IS contingency-based studies (Leonardi & Barley, 2010; Robey et al., 2013) owing to their interest in the contingency aspects that make technology work. This also brought about an ontological distancing from what is framed as discrete entities towards a more mutual and processual engagement of the human and non-human, or to put it simply as mutually dependent ensembles (Orlikowski & Scott, 2008).

IS scholars increasingly drew on the works of practice theorists within the social sciences discipline to pursue a processual analysis of technology. The processual approach of these scholars chiefly draws on Giddens' (1984) structuration theory, which is among the most cited social theories in the IS field (Jones et al., 2004, p. 299). Generally, these studies assume a social constructivism tradition that postulates that the relationship between the social and technology is rather embedded and emergent. This is to say that the interplay between the two is one of interdependence. For instance, on the one hand the standardised technology is inscribed with aspirations of social individual and interest groups. But on the other hand, it is through those very “advanced technologies [that] bring social structures which enable and constrain interaction to the workplace” (DeSanctis & Poole, 1994, p. 125). Orlikowski (1992) emphasises the duality of the technology concept and concludes that technology is designed to reinforce the organisation structure. However, it is the human action which appropriates the technology differently to what is designed. Such notions made the structuration-based studies to move away from the technology deterministic approach and

posit that technology artefacts are inscribed with intentionalities and the political rules of the designers.

To be more in line with the emergent nature of the dynamic of technology and the social actors, a more practice-oriented approach was devised to reflect the interplay between the two. In her later work Orlikowski (2000) moved away from the 'appropriation' of technology in her theorising about the 'duality of technology' (circa 1992) towards the conceptualisation of 'technology-in-practice'. She argued that, instead of technology being stabilised and embodied within the structure, the structure is being continuously 'enacted' by social actors and hence it is emergent. This is more in line with Giddens' (1984) duality of structure concept in his structuration theory. Orlikowski coined the term 'technology-in-use' which considered structures having a virtual existence that is continuously emergent from situated interaction with specific technologies (Orlikowski, 2000, pp. 406–407). Similarly, Volkoff et al. (2007) borrowed from Feldman & Pentland's (2003) routine theory to posit that technology was the ostensive aspect of a routine while human actions are performative aspects that recursively either reinforce or undermine the structure of the organisational work. Such an approach enabled the researchers to distance themselves from a deterministic approach in understanding technology.

However, the structuration analysis did have some limitations. The most prominent of these shortcomings is that these conceptualisations usually put special emphasis on the users' agency in the enactment of technology (Leonardi & Barley, 2010). Most of the discussion revolves around social agency, despite acknowledging the role technology can have in mediating human actions. The reasons for this are twofold: One is the tendency among these scholars to distance themselves away from the pitfalls of technology deterministic studies (ibid). The other reason is the inclination towards the social aspects is mainly to conform with the structuration tradition (Orlikowski, 2000, p. 406). This is not to contend that they do not recognise that technology is important enough to be constitutive of the analysis. Technology is perceived to be constitutive of the overarching structure that provides the necessary mechanism to facilitate or constrain work practices. However, Giddens uses the term agency almost synonymously with human agency or with the human social actor, asserting that technology is 'allocative resources' which can influence the social systems if they are included in the structuration process (Rose et al., 2005). As Berg (1998, p. 466) points out " technologies [within the structuration tradition] are highly consequential. Yet, this … is

consequential only through human action: human action is that which procures it and that which gives it meaning". Moreover, material artefacts in a structurational analysis are dependent on the knowledgeability of social actors (Jones et al., 2004, p. 309). This implies that if the social actors were unaware of certain features of the technology, then these features somehow are irrelevant to the phenomena at hand.

There is thus a difficulty in reconciling the agency and structure in IS studies fully in accordance with Giddens' intentions. This is acknowledged by Orlikowski (2000) where the inclusion of technology as part of social structures has been explicitly denied by Giddens. Indeed Rose et al. (2005, p. 147) advises us to refrain from labelling our theoretical work as structuration theory if we are not able to remain true to it.

The story of agency in IS studies does not end with the move away from deterministic accounts towards a practice perspective of appropriation. There is another move – or rather a shift – in re-conceptualising technology. This lies with sociomateriality perspective that has reframed the question of agency in IS studies (Orlikowski & Scott, 2008).

3.3. Sociomateriality: Towards the Co-constitution of the Social and the Material

Sociomateriality is a more recent theoretical approach that provides a different line of enquiry in its investigation of the question of agency, a much debated topic, as we have seen in the section above. This approach does so from an ontological position of questioning the conventional locatedness of agency in social subjects or material objects. In other words, sociomateriality provides an alternative to the relationship between the social and technical in IS by ontologically shifting away from the long-held assumptions about technology, work and organisations (Orlikowski, 2007; Orlikowski & Scott, 2008; Suchman, 2007).

Sociomateriality follows the ontology of becoming (Barad, 2003, 2007) where the social and the material are not pre-existing but are in constant flux. It is through sociomaterial practices that the social and material are being shaped and reshaped. Rather than asking ourselves whether the agency lies more or less in human or material entities, a sociomaterial position contends that agency emerges in situated interactions; or to put it more specifically from

'intra-actions'. To understand this point, we should revisit Barad's (2007) work where she defined intra-action as:

> "… the mutual constitution of entangled agencies. That is, in contrast to the usual "interaction", which assumes that there are separate individual agencies that precede their interaction, the notion of intra-action recognizes that distinct agencies do not precede, but rather emerge through, their intra-action." (p. 33)

Here Barad uses the term 'intra-action' (as opposed to interaction) as she assumes that there are no pre-existing realities or fixed entities. Ontologically, it is through these constant intra-actions within the sociomaterial assemblages that reality is produced continuously. It does not reach a fixed state; it is in a constant state of becoming through intra-actions within itself and with other sociomaterial assemblages (Orlikowski & Scott, 2008). This decentred ontological assumption of agency is what is designated as *agential realism*. According to agential realism assumptions, realities are (re)produced from the constant intra-actions of assemblages. In other words, these agencies – whether they are social or material – are always exhibiting an ongoing process of intra-action with each other. As Barad puts it explicitly states that "agency is an enactment, it is not something someone has" (Barad, 1996, p. 183).

In this way, sociomateriality disregards the demarcation of agency vs. structure or the social and material (Barad, 2007, p. 225). This can be conceived as a messy process where entities and phenomena are in the process of becoming as the result of their intra-actions.

The agential realist position of sociomateriality implicitly suggests temporality with the relation the participants have in their intra-action i.e. the notion of sociomaterial entanglement (Jones et al., 2004; Orlikowski & Scott, 2008). One cannot talk about one – either the social or material – without considering the other as both exhibit "constitutive entanglement" (Orlikowski, 2007, p. 1437). There is a sense of connectedness of these participants of the intra-action, where one cannot exist or be understood unless in relation to others. This dynamic and emergent nature of understanding agency as processual can be traced back to the term 'agencement' which was coined by (Deleuze & Guattari, 1987). Agencement can be roughly translated as 'the process of connecting'. This processual of the connectedness nature of agency has been lost in translation to our current understanding of agency to be consequential on others (Gherardi, 2015). The inseparability or entwinement of entities in their engagement is what Barad describes as "ontological inseparability of intra-acting agencies" (Barad, 2003, p. 815, 2007, p. 139).

A point to clarify is that the term assemblages are "not 'complete' things … [but] thought of in terms of flow and movement" (Introna, 2013, p. 333). However, we continuously use the term assemblage of the social and material, despite the risk of "rigidifying the concept into the thingness of final or stable states" (Gherardi, 2015, p. 8). The emphasis here is on the dynamic nature of the assemblages as they continue to be implicated in sociomaterial practices.

Key sociomaterial concepts that are integral to its understanding are the terms of 'performativity' and 'agential cuts' (Barad, 2003, 2007). According to this ontology of becoming, performativity assumes that the inherent properties and attributes of the human or the technological are not characteristics of them, but are *performatively* produced as consequence of intra-actions (Introna, 2013; Jones, 2014). In other words, properties or attributes of entities are manifested only through their encounter and engagement within a phenomenon. This notion of performativity is drawn from Butler's (1990) work where she argues that gender is not an attribute of a person but is performatively produced through actions. Suchman (2007, p. 263) reminds us that for archaeologists to discover 'defining features' in any excavation artefacts, they go through various forms of actions. It is only through a series of tests that they can attribute characteristics to the people who once lived at the archaeological site. This understanding of performativity where actions configure an entity's attributes goes beyond John L. Austin, who is credited with coining the term. According to John L. Austin, speech acts are not expressions but are performative in their implications i.e., discourses have consequences and are not mere word utterances (Gond & Cabantous, 2015; Orlikowski & Scott, 2015). For example, to say 'I do' in a casual party has different transformative implications than at one's wedding ceremony. Barad extends this further by contending that intra-actions are performative in the sense that they can have implications beyond discourses i.e., enactments can be transformative.

According to agential realism's approach to sociomateriality, the performative implications of intra-actions sets the boundaries and attributes of what is ontologically entangled entities through what is termed as 'agential cut' (Barad, 2007; Orlikowski & Scott, 2008). It is through various sociomaterial apparatuses that we performatively produce 'agential cuts' that temporarily separate entities from their entangled existence and assigns particular features to them. It is important to note that everyone does agential cuts as they go on everyday activities. From everyday small talk, to cooking, to vast project management. What

constitutes to be a subject of interest, say a university, is done through agential cuts by many individuals involved that results in the institute we are familiar with. In other words, through material-discursive practices of agential cuts, we enact a university (Scott & Orlikowski, 2013). As a researcher, I do agential cuts in the sense that I include certain narratives, exclude others, and craft a considerable text called thesis. This inclusion and exclusion in doing any task is due to agential cuts we all come across.

Similarly, what constitutes to be standardised technology is done through agential cuts. For instance, the boundaries and properties of the nationally standardised system are intra-actively reproduced and temporally stabilised through their local resolutions in situ. From a sociomaterial performativity perspective, a standardised system *becomes* rigid or flexible due to specific intra-actions with its constitutive assemblages. However, ontologically speaking, the standardised system is inextricably entangled with the world it is constitutive of. Even the 'organisation' should be assumed to be a verb (Law, 1994) where the events that take place should be understood to be "enactments—unfolding processes involving actors making choices interactively, in inescapably local conditions, by drawing on broader rules and resources" (Tsoukas & Chia, 2002, p. 577). All these practices continuously redefine the boundaries of what constitutes an organisation.

Thus agential realism assumptions that underpin sociomateriality concepts depart from representational studies at one end and also away from the strong social constructivism at the other end (Scott & Orlikowski, 2013). So instead of siding with a camp in the socio-technical debate of surmising humans to be ultimately accountable for appropriating technology in a certain way or that technology is responsible for laying out affordances/constraints on human activities, sociomateriality invites us to the reconceptualisation of this agency-structure relation. In short, agential realism's sociomateriality does not attempt to situate midway between the social and technical in the agency debate. Instead, it decentres agency and locates it to the sociomaterial participants following their intra-actions.

To avoid confusion of the sociomaterial position, to which this thesis subscribes, it is imperative to distinguish the agential realism's sociomaterial approach of Barad and Orlikowski from that presented by Leonardi's critical realism position (Leonardi, 2011, 2010; Leonardi & Barley, 2010). Jones (2014) wrote an excellent piece in which for the sake of convenience he designated Barad and Orlikowski's agential realist approach to as 'strong' sociomateriality and that of Leonardi's critical realist approach as 'weak' sociomateriality. It

is important to note that the terms of ‘strong’ and ‘weak’ do not indicate the rigour or cogency of the theoretical approaches as the labelling might imply. Rather what is intended is that the ‘weak’ sociomaterial perspectives endorse some, but not all of the Barad’s sociomaterial position (Jones, 2014, pp. 916–7). Leonardi’s sociomaterial takes a critical realism ontological position (Elbanna, 2016; Leonardi, 2013) that markedly differs from Barad’s agential realism. In brief, the following are three key differences in their sociomaterial conceptualisation:

One is that Leonardi contends that social and material agencies are “distinct phenomena” (Leonardi, 2011, p. 149) but their relationship are so intertwined that he uses the metaphor of ‘imbrication’ to describe the relationship. In other words, the social and material do pre-exist prior to their pending interactions.

Second, these two sociomaterial approaches differ in locating agency within a sociomaterial phenomenon (Leonardi, 2013). As articulated before, agential realist approach of sociomateriality postulates agency is performatively produced as a consequence of the phenomena. Critical realism on the other hand assumes that “people have agency and technologies have agency, but ultimately, people decide how they will respond to a technology” (Leonardi, 2011, p. 151).

Thirdly, there are differences with regards to the characteristics of the social and material actors. The material agency operates through particular affordances and constraints on the participating social agents that interact with it. In other words, both the social and material elements exhibit certain specific properties and attributes that inform us of the affordances and constraints that are their characteristics of them. This is in contrast to the previously described sociomaterial conceptualisation where characteristics or properties of an object are performatively produced from their intra-actions. Hence the ‘weak’ sociomaterial positioning takes the view that technology does exhibit features that can condition subsequent interactions with the social.

However, Leonardi’s sociomaterial approach does not constitute a major shift as that of Orlikowski and Barad’s agential realist approach. Other than re-introducing the role of the material in studying technology, it does not deviate much from the socio-technical approach outlined in previous sections. Indeed, Leonardi did admit that his sociomaterial approach borrows from its theorisation from structuration theory (Leonardi, 2013) rather than adopting

the paradigm shift of Barad/Orlikowski's approach. Through iterative interactions with the social, the structural characteristics of the material can either be reinforced or modified (ibid).

What this entails is that we end up with issues similar to those raised earlier about IS studies that subscribe to Giddens' Structuration Theory (Section 3.1.2). In other words, these propositions are somehow suggestive of the anthropocentric view of the socio-technical phenomena (Introna, 2013, p. 331). The materiality of the technology is passive and the focus is on the human actors. Nevertheless, the relatively softer transition of Leonardi's sociomaterial position has gained sympathy and hence is relatively more widespread sociomaterial adoption in the IS field (Barley, 2015; Carlile, Nicolini, Langley, & Tsoukas, 2013; Faulkner & Runde, 2013; Marabelli & Newell, 2015; Marabelli, Newell, & Galliers, 2016; Mutch, 2013). However, other than an emphasis on the importance of material arrangements in technology use, Leonardi does not do differ widely from other practice-based studies except in its attitude towards material artefacts (Pentland & Feldman, 2008). It shares the two main propositions of structuration theory in IS in "that technologies become 'stabilized' after development; and that they 'embody' structures which (re)present various social rules and political interests" (Orlikowski, 2000, p. 405).

To conclude this section, this research subscribes to the 'strong' or agential realist's sociomaterial positioning – or more especially the performativity of sociomaterial practices more specifically – as it provides more purchase into the conceptualisation the workings of the centralised ERP system in Bahrain. The theory presents valuable insights into the "complex stream of mediated practices" (Introna, 2016, p. 19) that are performative in their accomplishments. It distances us from locating agency in entities and directs our focus to the performative implications of emergent practices. Moreover, it reasserts the relevance of the materiality in the study of technology in its accomplishment. In this case study, it was helpful in understanding how particular local configurations in different and yet temporally stabilised assemblages of social and material elements are enacted as a consequence of their intra-actions. Nevertheless, like other theoretical approaches, sociomateriality is not infallible and met with criticism in the literature. The next sub-section engages with its limitations.

3.3.1. Challenges faced in Adopting Agential Realism's Sociomaterial Lens

The sociomaterial theoretical approach is not free from limitations and challenges, far from it. This section divides such challenges into three main points.

The first – and probably most important challenge – is to consistently commit and maintain the sociomaterial language throughout its writings. This issue has both ontological and epistemological dimensions to it. Ontologically, it has to do with defining the ontological positioning of relationality in sociomaterial. This becomes apparent as when we seek to explain ontological assumption of sociomateriality, we deny the bifurcation of social and material. But in so doing, we are in some sense acknowledging the existence of such pre-existing entities (Introna, 2013). This leads us to an epistemological concern in conducting a sociomaterial study.

Even though we would assume a non-dualistic understanding of the social and material, we invariably get sucked into bifurcation language in our expressions. A problem which many IS researchers reflectively admit to when drawing on sociomateriality in analysing their empirical data (Wagner et al., 2010). This is partly due to our tendency to demarcate what in actuality are fluid relationships (Mol & Law, 1994). This problem is compounded partly due to the limitations of our language (Woolgar, 2002). As Suchman (2007: p. 263) notes "The problem is less that we attribute agency to computation artefacts than that our language for talking about agency, whether for persons or artefacts, presupposes a field of discrete, self-standing entities." We are in the end victims of our limited language expressions that delve into the conventional articulation of subject/predicate structures. As such, technology seems to occupy a subservient position in our language in relation to social entities.

However, we should recognise that any distinctions or ontological boundaries we create between the social and the material are done for analytical purposes. i.e. through our own agential cuts (Barad, 2007). It is an epistemological challenge to capture what we intuitively perceive to be fixed and pre-existing in a processual language. Yet, in actuality, we assume that they entail one another and that they are open and emergent. Introna (2013, p. 322) points out the analogy that we divide the temporal flow of time to the conventional standards of hours and seconds, although we implicitly know that time is continuous and not chopped by discrete time frames. Similarly, from a sociomaterial perspective we are engaged in

‘absorbed coping’ (Dreyfus, 1991, pp. 69–72) where we are immersed (or entangled) in the world we operate in and shift to a more representational perspective of our surrounding once we acknowledge its existence. It is thus inevitable to assume a subject-object expression for analytical purposes.

Second, sociomateriality is criticised for formulating an assortment of conceptual terms (such as ‘intra-actions’, ‘agential realism’, ‘entanglements of sociomaterial assemblages’ and so forth) that are abstract and complex. Though such concepts are seen as beneficial in the theorising about human and technological relations (Suchman, 2007), they are criticised as contributing further to the “academic jargon monoxide” (Sutton, 2010). Such accusations seem to be unfair given that it is a feat to explain complex concepts and notions with mundane language (Kautz & Jensen, 2013, p. 25).

Though such conceptualisation may not appear straightforward at first, they provide the potential to generate deep insights into the configuration of sociomaterial assemblages. The sociomaterial lens produces ‘thick’ and interesting perspectives on phenomena (Introna, 2013, p. 340). So instead of replacing ‘agential realism’ with the long established ‘critical realism’, as proposed by Mutch (2013), we should encourage the pluralistic means of theorisation (Scott & Orlikowski, 2013). More importantly what matters is not the pros and cons of each sociomaterial positioning, but that a particular theatrical direction may provide us with interesting insights for our research enquiries (Jones, 2014). Drawing on a vast array of theoretical approaches from non-IS fields does actually enrich the IS field (Davison & Martinsons, 2016; Robey, 1996; Walsham, 2012, 2014). There is no doubt about the vast, decades-long range of contributions to knowledge that the bifurcated ontology of the social-technical studies has achieved (and continues to achieve) in the IS research. However, we have to bear in mind that sociomateriality is still in its infancy and has a long way in undergoing its own becoming, and the becoming of those who intra-act with it, including ourselves.

The third criticism follows on the previous points in that sociomateriality is not adept enough for empirical case analysis. Leonardi (2013) sees that the ‘strong’ variant of sociomateriality has the philosophical attraction of ontologically defining the world we live in. However, he finds that it stumbles when it comes to engagement with the empirical world. Barley (2015) adds that sociomateriality is great to explain the premises of micro-practices but lacks a way to analyse this ontology empirically. However, such sentiments are not shared by recently

published IS studies which draw heavily on Barad's sociomateriality (Cecez-Kecmanovic, Galliers, Henfridsson, Newell, & Vidgen, 2014; Doolin & McLeod, 2012; Introna, 2016; Orlikowski & Scott, 2013; Scott & Orlikowski, 2014; Wagner et al., 2011, 2010).

Nevertheless, this criticism is valid to a large degree when dealing with the analysis of this thesis findings. Indeed, relying solely on the sociomaterial lens was insufficient to theoretically explain of the case findings. To gain analytical insights – at least for this research – I had to resort to another analytical theory, namely, Goffman's dramaturgical analysis. Indeed, the combination of the two theoretical approaches – which initially seem at odds with each other – can address some of the above mentioned apprehensions. But more importantly, this combination has provided me with the necessary analytical tools to deal with the research objectives.

3.4. Goffman's Dramaturgical Analysis

Before embarking on an explanation of the theoretical framework underpinning this research, i.e., sociomaterial dramaturgical approach, it is apt to provide some background on Goffman's work. This section is divided into two parts. The first part briefly highlights the main tenets of dramaturgical analysis as presented by Goffman. The second part is about the main criticisms laid out at Goffman's work and how a non-dualistic re-reading of his work can in some sense alleviate such concerns.

A dramaturgical analysis, particularly a Goffmanesque analysis, is an analytical approach that looks at social interactions analogically as dramatised theatrical performances. Erving Goffman, a prominent Canadian social theorist, has been associated with the pioneering dramaturgical modelling of the social encounters that his name is almost synonymous with the impression management. Goffman developed his dramaturgical analytical framework following his ethnographic dissertation research in the Shetland Islands in the mid-1950s. Using the theatre metaphor, the social interaction of the local inhabitants of the islands both among themselves and with outsiders is made meaningful in informing the reader about the actions and reactions of individuals and social groups. His dramaturgy model is reported in his seminal work *The Presentation of Self in Everyday Life* (1959). He continued to publish books throughout his career in social behaviour theory, but it is this first book based on his

doctoral dissertation work that this thesis draws heavily on. Indeed, Goffman's dramaturgical work is quite influential in the IS field as demonstrated by the fact that his approach been systematically drawn upon, especially within the social media domain (Aspling, 2011; Bullingham & Vasconcelos, 2013; Hogan, 2010; Lewis, Kaufman, & Christakis, 2008; Marabelli & Newell, 2015).

In brief, we can say that Goffman sees the social world as one filled with dramatised performances where individuals and social groups are involved in very social acts. These actions and subsequent reactions in social interactions are geared towards presenting acceptable images of themselves in accordance with society's normative expectations. In essence, we all undergo *impression management* in social interactions to foster and maintain a presentable image of ourselves (Goffman, 1959). We communicate and behave differently with different audiences (e.g. our family, colleagues, or authority figures) as well as in different premises (e.g. at home, restaurant or conference).

But why do we have to go through the effort of doing so in every social encounter? According to Goffman, we do so, firstly, to preserve our self-image within society in the best possible way. This stems from the notion that humans are primordially social beings and have an innate desire to be accepted and even revered within the social community. This eagerness to obtain social belonging and cohesion is what drives our actions in various social encounters. Secondly, we work to manage our impressions due to our desire generally to avoid open conflicts (ibid, p. 21). Even if the performer wants to break down the barrier of the audience segregation, the audience would not allow it. It would be emotionally draining and time-consuming for the audience do not treat the performer according to the 'occupational face value' (ibid, p. 57) he presents before them.

A fundamental assumption that underpins the Goffmanesque analysis of social interactions is the notion that social actors present different 'selfs'; and those fostered presentations should be taken seriously. To accommodate the many situational expectations that our observers demands, Goffman – borrowing from Robert Ezra Park (1950, p. 249) – says that we assume different 'personas', or 'masks'. We assume these personas to live up to our conceptions of what ourselves are. We do that so often that we increasingly become these personas themselves (Goffman, 1959, p. 30). This is not to be disingenuous per se, but to choose our behavioural actions to suit the situational context we are in. For instance, the way we behave in a funeral is different from that in a party. According to Goffman, society has an implicit

understanding that when we project certain characteristics, we expect others to respect and treat us accordingly. Goffman notes that "when an individual plays a part he implicitly requests his observers to take seriously the impression that is fostered before them" (ibid, p. 28). It is thus these unfolding social interactions – presentations and subsequent responses – that inform our actions and reactions.

Another concept of Goffman's analysis that needs to be highlighted are the spaces where the dramatised performances take place i.e., the region. According to Goffman, the *front region* (or frontstage) is the place where the performers carry out performances according to the "prevailing standards of decorum" while the back region (or backstage) is where the performance is rehearsed and contradicts the given performances (Goffman, 1959, pp. 110–4). There are three points about the dramaturgical 'regions' that need to be covered, at least briefly.

One is that the front and back stage are interdependent on each other. The performance in the front stage becomes more meaningful in relation to the backstage actions, and vice versa. Secondly, the boundaries that delineate front and back regions are not pre-set or physically delineated but are socially accomplished by the emergent situation. This is to say that what separates the two regions is not necessarily a physical boundary. Instead, he front or back regions are created according to the current performance. Following on this notion, the third point is that the front and back regions shift constantly. What is deemed to be a back stage in a particular performance can serve as a front stage for another performance (Goffman, 1959, p. 127).

For instance, let us take the hypothetical example of a presenter gesturing to his colleagues among a crowd during a conference presentation. The general presentation is one which is front staged to the general audience. But the same gestures presenter uses have a shared meaning with the colleagues i.e., an inside joke. What can be pulled out from this example are two points: (a) the front and back regions are not separated by a physical boundary; both are in the same physical space. (b) The gestures are front staged towards the colleagues but are back staged for the conference presentation attendees in the same physical space. To summarise, regions are interdependent on each other; they are not fixed or physically demarcated but are contextually defined in practice.

What is also relevant from Goffman is the shared understanding of the norms among social groups and how the respective audience expects such standard behaviour. Again, as with other practice-oriented studies, dramaturgical analysis postulates that an understanding of the defined situation is generally historically and culturally rooted (Reckwitz, 2002; Sandberg & Tsoukas, 2015). Over many consecutive historical enactments, the associated performances become more crystallised and routinised in their process of standardisation. These established standards are norm-driven and serve to guide future performances when the same situation arises. The participants of an encounter are expected to conform to the commonly shared norms of the situation. Hence what governs the practice under observation is a 'veneer of consensus' (Goffman, 1959, p. 21) or agreement among the current parties about what the appropriate situation call for and about what associated actions are to be performed. So in any encounter, there is "a temporary truce, a working consensus, in order to get the business done" (ibid, p. 173). The collective audience is aware that the ongoing performance is a fostered one and engages with it accordingly.

It is the accessibility and the breadth of Goffman's dramaturgical analytical toolset that has made it influential in many disciplines. In recent times, there is a renewed interest in his impression management work for IS research. This comes as no surprise given that technology redefines social interaction in different and interesting ways. Goffman has been drawn upon to inform many IS research domain including online identities (Aspling, 2011; Bullingham & Vasconcelos, 2013), e-mail communication (Menchik & Tian, 2008), social media privacy (Lewis et al., 2008), online/on-site transactional negotiation (Barley, 2015), virtual world interactions (Schroeder, 2002) and teleworking using mobile technology (Hafermalz & Riemer, 2016; Manning, 1996) to name a few. His analytical framing became pertinent to my own research following my initial analysis of drafted empirical narratives. To put it more bluntly, the case data of my research appeared to 'scream Goffman'. Hence my decision to adhere to Goffman's dramaturgical analysis.

However, as with any theoretical approach, Goffman's approach is not without its share of criticisms. The following section addresses the issues levelled against Goffman.

3.4.1. Aligning Goffman and Sociomateriality

This section outlines the issues brought against Goffmanesque analysis and how a sociomaterial take on the subject can help alleviate some of these concerns.

The first issue has to do with studying technology-mediated social interactions. Goffman assumes that the participants in a social interaction have a physical presence. Goffman also believes co-presence essential for social interaction to take place. Individuals or groups (or interactants) have to be "accessible, available and subject to one another" (Goffman, 1963, p. 22). Goffman assumes bodily presence for social interaction to take place (Samuel, 2016, p. 31) where two individuals or social groups (or interactants) are physically present and within the visual and aural reach of one another. This obviously has limited applicability to IS studies especially considering that technologies lie at the heart of mediating synchronous and asynchronous interactions. However, this can be easily overcome by re-interpreting interactions to be not limited to face-to-face encounters. Indeed technology-mediated interactions – synchronous or asynchronous – are not necessarily affected by temporal or spatial constraints (Hogan, 2010) nor by algorithmic dispositions (Marabelli et al., 2016). This extension of interaction beyond physical co-presence has a wider application, especially in technology studies (Pinch, 2010) where technology happens to disrupt work relations, communication actions and control mechanisms in organisations (Manning, 1996).

Secondly, Goffman is criticised for underplaying the role of materiality in his dramaturgical work (Barley, 2015; Pinch, 2010). The cases presented in Goffman's works are all socially focused. This is anticipated given that he is interested in understanding social conditioning that governs human actions and behaviours. However, by foregrounding the role of materiality in his work, we can observe its significance in shaping those very interactions. Materiality – or 'sign equipment' according to Goffman – is implicated in the specific performance. He argues that certain settings with specific "assemblages of sign equipment" (ibid, p. 33) can inform the definition of the situation. These can be both material as in the surrounding premise as well as social in terms of cues, gestures, language and behaviour. Furthermore, given that services are intangible in nature they can be dramatised through material means. He cites the example of undertakers charging extra for material objects to compensate for the cost of funerary services. The reason for this is that most of the work for preparing the funeral is backstaged, and hence cannot be dramatised. Similarly, merchants charge more for inexpensive materials to compensate for the intangible procurement and

insurance services. The point here is that material does indeed have an important role in an encounter. So even if Goffman does not explicitly deal with materiality and technology, he periodically refers to them through his work despite his anthropocentric focus. Hence, by having a sociomaterial take on Goffman's work, the inseparability of the social and material can be taken into consideration in the case analysis.

The third criticism levelled against the Goffmanesque approach is his structuralist-functionalist approach in studying social phenomena. More specifically the issue lies with the intentional performances of personas or masks. According to Mol (2002), a post-structuralist reading of Goffman does not work given that the term 'performance' implies we wear different masks to hide our pre-existing 'real selves deep down, back stage' (Mol, 2002, p. 35). Hence, Mol favours the term 'enactment' as performativity manifestation over 'performance'. Orlikowski and Scott did express similar concerns towards the term 'performance' (to perform is to do) asserting it should not be confused with the notion of 'performativity' (to constitute reality through actions) (2008, pp. 460–1).

However, Hafermalz et al. (2016) challenges this line of argument through heuristical re-reading of Goffman's work and contends that Goffman can be interpreted from both a dualistic or non-dualistic positions. Three points demonstrate how a Goffmanesque take can be compatible with a sociomateriality position. First, although Goffman uses terms like 'real self' and 'true facts', he does not provide us with an epistemological method to identify it. What we can observe is the contrived performance unfolding before us. Indeed, Goffman professes scepticism about tracing the real true self as we cannot ascertain the performance to be any more real than other performances (Goffman, 1959, pp. 43–44). Even back stage's actions are still a performance to whoever is in the back region. Besides, he was not really interested in the ontology of the true undisputed 'self' or 'facts', but in how different personas are performed in situ. Second, the roles assigned to the actors are activated whether the individual is aware of them or not. Counter to what we generally assume in a dramaturgical encounter, the emergent performance and its subsequent consequences are not entirely in the hands of the performers or the audience. In essence, the roles are performatively enacted whether the actor intentionally or not performs the role. Third, performances are a 'collective involvement' (Hafermalz et al., 2016, p. 172). For the performance to be meaningful it has to involve more than the individual performing a role. The legitimacy of a performance's appropriation and judgement lies not by the individual

associated with the role, but by others who are outside the individual boundaries. To put it mildly, there is no performer without audience and vice versa, and those roles are thrusted onto others as a consequence of the current performance. Indeed, Goffman stresses that "a status, a position, a social place is not a material thing, to be possessed and then displayed… it is none the less something that must be *enacted and portrayed*, something that must be realized" (Goffman, 1959, p. 75; my emphasis).

Therefore, even if Goffman is regarded as belonging to the then-dominant structuralist-functionalism discipline, his work can be re-interpreted to be compatible with the processual and relational ontological approach of sociomateriality and the performativity of the practice lens. This re-engaging with Goffman's work can prove to be productive in obtaining interesting insights into IS research. It is one of the objectives of this study to prove that Goffmanesque sociomateriality is of value for empirical analysis. The following section provides a more detailed examination of how sociomateriality and Goffman can be a productive analytical research tool.

3.5. The Goffmanesque-Sociomaterial Theoretical Position

The sociomaterial lens provides us with the ontological premises of the research while Goffman's dramaturgical approach equips us with the analytical tools to make sense of the case findings. The purpose of this section is to provide the conceptual facets that underpin a Goffmanesque sociomaterial theoretical position. There are four main inferences that pertain to a sociomaterial dramaturgical analysis that underlines the analysis:

The first point is centred on the question of agency for a sociomaterial dramaturgical position. Based on a sociomaterial ontological standing, agency is decentred and continuously performed by what Barad termed as 'intra-action'. As described in a previous section (section 3.2), agency does not lie in the interacting participants of an activity but emerges from their intra-actions.

Following this, a Goffmanesque sociomaterial re-interpretation locates agency in the unfolding performance. It is through the agential cuts of the arbitrary performance that each sociomaterial participant is temporarily designated its role (Barad, 2007). The participants of a performance – social or material – are constitutive of the emergent performance hence are rendered meaningful in a relationship with each other. The performer is not a performer in

every encounter but assumes that specific role as a consequence of intra-action. In a similar way, what constitutes a sociomaterial object – be it props or stage – becomes meaningful in relation to others and is enacted in practice (Orlikowski & Scott, 2008, p. 462). Goffman explicitly emphasises that "a correctly staged and performed scene leads the audience to impute a self to a performed character, but this imputation – this self – is a *product* of the scene and not the *cause* of it" (Goffman, 1959, pp. 244–5, original emphasis). Thus there are conceptual parallels between sociomateriality and Goffman's position to suggest that sociomaterial performances are performative to its constituents.

A cautionary note here is that when we assume a decentral agency; it becomes really difficult to account for action because our natural tendency is to locate actions in actors. Nevertheless, resolving this dilemma of accounting for the location of agency is not the objective of this thesis. Therefore, for sake of clarity and brevity, the empirical accounts of this thesis are written as more actor-centric. Indeed, this same approach can be found in other sociomaterial IS empirical studies (cf. Scott & Orlikowski, 2013, 2014; Wagner et al., 2010). Nevertheless, a conscious effort is made in the analysis and discussion chapters (Chapter 8 and 9) to maintain the decentral narrative this thesis subscribes to.

Secondly, the performer and audience should be articulated to be *sociomaterial* rather than exclusively social beings. It is intuitive to assume that a dramaturgical encounter predominantly encompasses individuals or social groups interacting. This is especially so given that Goffman's works are centrally focused primarily on human interactions (Pinch, 2010). However, with a non-dualistic reading of Goffman, we can extend this perspective to take into account the sociomaterial nature of participants and audiences. An example of this is a user interacting with a system terminal in comparison with the typical interaction with a human audience. Irrespective of whether the audience is human or not, each encounter entails a particular way of performing where the audience can be the technology or the person. By necessity, these audiences do not exist independently of other entangled sociomaterial entities. Hence, the impression fostered by a performance does not reflect only the individual's performance, but permeates to the other sociomaterial relations he/she is associated with. That is to say it can have performative implications on the user, system memory, networked database, auditors and so forth. Hence a performance may have performative implications on social and material entities, whether they are participants in the encounter or not.

The third point follows on the previous point where the notion of the dramaturgical stage of a performance is being *sociomaterial* in its constitution. A dramaturgical stage is not a static and pre-existing space where performances take place. Rather any place can performatively become the stage for a sociomaterial encounter as a consequence of its intra-action. To extrapolate this conceptualising further, a computer system can be performatively enacted to be the platform for a performance as a result of a particular sociomaterial performance. For instance, a computer screen becomes the centre stage presenting the sales performance of an organisation. So similar to the participants of a performance of the previous point, the boundaries of the stage region are not pre-set but are articulated according to the currently defined situation. Thus in essence, a sociomaterial dramaturgical stage is more than both being material in its material affordances and constraints, and social in its norm-driven discursivity, but is performatively enacted as per the ongoing current performance.

The fourth and final point to discuss lies at the heart of the notion that understanding the sociomaterial practices is the significance of the audience. More specifically, the sociomaterial audience plays an integral role in the shaping and re-shaping of the situational context. It has long been established within the IS tradition the importance of context with regards to technology implementation and use (Avgerou, 2001; Davison, 2002; Howcroft, Newell, & Wagner, 2004; Nandhakumar, Rossi, & Talvinen, 2005; Walsham, 1995). Borrowing from Goffman, the audience is important to set the setting for the appropriate performance to be presented normatively. So for Goffmanesque IS analysis, the specificities of the context of enacting the standardised system are very much contingent on the current audience. Indeed, Goffman (1959, 1961, 1974) consistently stresses throughout his works that the situationally-defined context or 'frame' is essential for the performance to be meaningful. These frames are generally defined by the audience present; social and material. For example, listening to a professor's conference presentation entails different normative behaviour when it is conducted face-to-face or recorded by camera. Note that the audience here frame the standard decorum of each performance according to their respective sociomaterial arrangement. The sociomaterial audience frames the expectations of the performance, which is generally historically-rooted, culturally-defined and norm-oriented.

In summary, the sociomaterial re-reading of Goffman entails three underlying assumptions that underpin the theoretical framework of this research's analysis: First, we see that the emergent roles are activated whether the sociomaterial participant is aware of them or not.

This is to say that dramaturgical performances performatively enact the subsequent dramaturgical roles in any sociomaterial encounter. Besides, the emergent roles of performer and audience are intrinsically intertwined. The roles assumed by constitutive parties keep switching within the same encounter as they continuously intra-act. Hence, the distinction between performer and audience is "only distinct in relation to their mutual entanglements; they don't exist as individual elements" (Barad, 2007, p. 33). Secondly, the dramaturgy metaphorical terms are not exclusive social or material but rather are sociomaterial. Even if a participant is a social actor, we cannot dislodge the sociomaterial relations that are contingent on the participant's becoming. Hence the performer, the audience and the stage all are sociomaterial in nature. Third, the judgement of suitability of any dramaturgical performance lies not with the sociomaterial performers, but by the audience (Goffman, 1959, 1961). The audiences are imperative in defining the setting of the sociomaterial performance. It is by understanding to context of a performance that the ostensive normative practices become meaningful.

Following this integration of the sociomaterial and Goffmanesque concepts, the standardised system can performatively be enacted to be take up different conceptual categories that are more than just a 'tool' or 'platform' (Hafermalz et al., 2016). So in essence, the standardised technology – according to the currently defined situation – can be performatively (re)produced to be the audience, the stage, the performer or simply a prop. This theoretical framework is used to analyse the case findings in chapter 8. The following chapter is about the methodological underpinnings of this research.

3.6. Summary

This chapter is divided into three main parts: The first part demonstrated the common principles of what loosely constitutes a practice-based study. Practice-oriented research is more in line with the processual nature of the implementation, modification and continuous appropriation of standardisation within a contextualised environment. The second part reviewed the attitudes of IS literature towards conceptualising agency in technology use. After looking at the varying viewpoints in the socio-technical studies, this chapter suggested that a sociomaterial perspective can offer a useful alternative to the question of agency in its engagement with the social and technical. It does so by locating agency in practice, and thus

distances itself from the dichotomy of social/technical in some technology studies. The third part of this chapter laid out the theoretical basis of this research. More specifically, my choice of the sociomaterial re-conceptualising of Goffman's dramaturgical analysis as a productive theoretical position to understand the working of standardised technology. The hope is that the integration of these theories – sociomaterial and Goffman – can provide insights into the dynamic nature of a performing national ERP system by analysing its intra-actions from a dramaturgical perspective.

4 Methodology

The aim of this chapter is to present the methodology that underpins this thesis. The first half of the chapter is literature focused while the second half describes my research experience. The chapter is divided into four sections, as follows:

The first section (4.1) is dedicated to the philosophical assumptions underlying my research. The second section (4.2) describes my research design and methods that operationalise the research. The next section (4.3) narrates the informal ways resorted to gain and maintain access to the empirical sites. The last section (4.4) provides a reflective and personal account of the data collection and analysis experienced in this study. Given the qualitative nature of this study, the researcher is an indivisible part of the research. Hence, this chapter – more specifically the later sections – is more personal in its tone and writing style than the rest of the thesis.

4.1. Philosophical assumptions

Every research has – implicitly or explicitly – some ontological assumptions about the nature of the world, epistemological considerations of how knowledge can be derived from this world, and finally how we can make a contribution to this knowledge (Orlikowski, 2010;

Orlikowski & Baroudi, 1991). This research is no different; it is positioned within the ontology of 'agential realism' (Barad, 2007; Orlikowski & Scott, 2008).

As articulated in the previous chapter (Section 3.2), 'agential realism' ontological positioning assumes a relational ontology and an ontology of becoming (Barad, 2007; Orlikowski & Scott, 2008). In short, the relational ontology attempts to do away with the bifurcated thinking of subject/object and social/material (Barad, 2007, p. 26). Instead, it assumes the notion of the inseparability of the social and material entities. Any subject of interest is rendered meaningful when considered in relation to the others. Agential realism's approach to sociomateriality extends this assumption further by taking up the ontology of becoming. This assumes that all entities of the world do not have pre-defined properties or attributes; rather these entities are enacted as a consequence of their intra-action (Barad, 2007; Introna, 2013; Orlikowski & Scott, 2008). Reality itself is a consequence of the phenomena at hand. It is the through the performative implications of these emergent phenomena that entities and "differential boundaries are stabilized and destabilized" (Barad, 2003, p. 808). This ontological positioning distances itself from the representational view of attributing properties and boundaries to objects. Instead of focusing on what representations reflect objects, sociomaterial performativity accounts for how such representations are produced and reproduced. As Barad notes, "representations are not snapshots or depictions of what awaits us but rather condensations or traces of multiple practices of engagement" (Barad, 2007, p. 53).

Given the relational and processual assumption of the world, an epistemological approach to a sociomaterial analysis is one similar to the traditional interpretive approaches, but with an important caveat, namely, the distal and proximal thinking involved (Cooper, 1992; Cooper & Law, 1995). In essence, distal thinking is the assumption that organisations or technological systems are structures with strong boundaries that can be measured. As for proximal, it reminds us that organisations and systems are actually an effect or consequence of these measurements we deploy (ibid). This takes into account the process-oriented and practice-based nature of the technology to be enacted. What such distal/proximal thinking allows us to do is to engage with the world objects as having some boundaries and stability, but remind us that such boundaries and stabilities came to be from processes and are continuously subject to configurations. Besides, irrespective of the mode of enquiry, the research apparatus is bound to set boundaries on the phenomena for analytical purposes

(Doolin & McLeod, 2012). So basically we take what we perceive to be the boundary of the organisation or technology “distally, the boundary is an effect” for analytical purposes without foregoing its nature to be “proximally, it’s a happening, a process” (Cooper & Law, 1995, p. 243). However, we should not forget that such stabilising of objects is only temporary and does not completely reflect the interconnected and processual nature of the objects under study.

To put the proximal and distal views into perspective, the concept of practical rationality – as opposed to the scientific rationality of discrete entities – can be fruitful (Sandberg & Tsoukas, 2011). In short, we are all relationally constitutive of the practices and hence embody them. Generally, we are in this state of immersion in the practices without realising it. It is only when we experience some form of disturbance or disruption that we thematise and divide the sociomaterial practices into discrete tools and people i.e. we kind of 'change over' to a subject-object epistemological relation (Sandberg & Tsoukas, 2011, p. 344). In other words, we are constantly involved in ‘agential cuts’ to make sense of our surroundings. An analogy of this is a regular teaching session where the lecturer is immersed in the presentation. It is only when something goes wrong, such as PowerPoint breaking down, that the lecturer disengages temporarily to a mode of deliberation to address the problem.

What this implies for my research project is that irrespective of the methodological tools we employ to gather empirical data, we are limited by our inability to fully capture the processual and constitutive nature of the objects under study (Introna, 2013; Mueller et al., 2016). Nevertheless, this should not deter us from investigating the world from a different analytical lens; even if it means employing well-established conventional methodological choices that seem to be at odds with the ontological assumptions of sociomateriality. At least for our part as interpretive researchers, we should be actively reflective and aware of our own limitations and those of the instruments we employ.

4.2. Research Design and Methods

It is apposite to mention at this point the reasoning behind the choice of my methodological approach. Methodological choice does have significant theoretical and practical ramifications such as determining what is to be focused on and what is to be obscured (Orlikowski, 2010,

p. 29). As a general rule of thumb, the research aims and the unit of analysis can give us a hint about the choice of the research paradigm (Easterby-Smith, Thorpe, & Jackson, 2012; Recker, 2013).

In order to realise the objectives of this research, an interpretive qualitative paradigm is the most suitable. The research aims of this study are to investigate the work practices that enact standardised technology, where the unit of analysis is the 'practices'. Hence, the interpretive qualitative approach provides the necessary research design to conduct an exploratory study such as this one as it allows the elicitation and analysis of the rich data of practice-based research (Orlikowski & Baroudi, 1991). An interpretive approach allows us to capture the expected as well as the unanticipated findings in the empirical sites. Moreover, the emergent practices derive their meaning from an intersubjective understanding of the cultural and historical norms (Crotty, 1998). The idiographic actions that emerge from appropriating the standardised technology are contingent on the shared understanding of the contextual situations of their happening (Klein & Myers, 1999).

In contrast, a positivist approach – despite being the dominant one in the IS tradition historically (Chen & Hirschheim, 2004; Davison & Martinsons, 2011; Leidner & Kayworth, 2006; Orlikowski & Baroudi, 1991; Shoib & Jones, 2003; Walsham, 1995) – does not take into account the inherent complexity of the subject matter. The positivism stream has long been institutionalised on scientific standards of validity and replicability. There is a focus on achieving scientific rigour in research instruments which was historically built on a long tradition of cumulative scientific knowledge (Crotty, 1998, p. 27). However, the positivism approach has been criticised by IS scholars regarding its applicability in explaining social phenomena (Cecez-Kecmanovic, 2005; Galliers & Land, 1987; Orlikowski & Baroudi, 1991). It is not within the scope of thesis research to provide a comprehensive account of the merits and demerits of the positivism and interpretive research approaches. Besides, comparison of research paradigms has already been extensively covered in the IS literature itself (cf. Cecez-Kecmanovic, 2005; Orlikowski & Baroudi, 1991; Recker, 2013; Weber, 2004). However, there are four points that summarise the reasons why the positivism paradigm is seen as unsuitable in conducting IS practice-based research.

The first point is related to the position of the researcher. Positivism stream presumes that the researcher should assume a value-neutral position as a means to achieve rigour through objectivity (Cecez-Kecmanovic, 2005). The rationale is to minimize the possible biases that

human subjectivity can have on the research outcomes. Ironically, the main deliverables of Positivist studies offer suggestions to management on how to tinker these value-neutral constructs to achieve a better yielding results (Orlikowski & Baroudi, 1991). Besides, a researcher's position and biases cannot be taken 'out of the picture' when it comes to collecting and analysing the case study (more in section 4.4 below). Secondly, positivism position on historical context varies markedly from the interpretive paradigm. For positivism, a past pattern is anticipated to repeat in future instances (Klein & Myers, 1999). This is in contrast to interpretive studies where the relation of technology, organisation and humans are constantly changing. So each historical event is a distinct instance. This is more in line with idiographic accounts of enacting technology across organisations. Thirdly, positivism views objects as independent of each other and can thus be captured, isolated and tested for "law-like theories and causal relations" (Cecez-Kecmanovic, 2005, p. 38). This is limiting since there are many social aspects of the world which cannot be elicited through the rigid quantitative means of surveys. Moreover, the aspects which are not of interest to the hypothesis under study are ignored. This implies that they are non-relevant or that they have no influence on the current hypothesis (Galliers & Land, 1987). Finally, statistical testing entails precision in its application; a case which we know cannot be fully attained, especially in studying the social conditions involved with technology (Orlikowski & Baroudi, 1991). Hence the claims that such research can achieve accuracy can be misleading (Cecez-Kecmanovic, 2005; Goffman, 1959, pp. 242–3).

The points mentioned above are not meant to disparage the positivism paradigm. In fact, the positivist paradigms have long-standing and scientifically-rooted research processes that have proven their tenacity historically and hence it still dominates the IS discipline. Nevertheless, the purpose here is to make the argument that a positivistic approach is unsuitable for the aims of my research topic.

With regards to the research design choice, this research subscribes to an in-depth interpretive case study design (Yin, 2009), which is well-established in the IS tradition (Walsham, 1995). Klein and Myers (1999) remind us that case studies can be quantitative or qualitative in their research methods. The latter is more befitting for the purposes of my research. An interpretive case study that is qualitative in its methods allows us to gain insights into emerging topics by examining phenomena which occur in their natural setting (Denzin & Lincoln, 2011, p. 3). Indeed the qualitative approach is appropriate in bringing to light the

subtleties and nuances through 'thick descriptions' (Geertz, 1973) of the empirical settings. The in-depth and contextual data elicited through qualitative means cannot be attained through quantitative modes of research of survey distribution and statistical testing. Research methods should acknowledge the complexity inherent in the subject matter (Galliers & Land, 1987, p. 901) and how such complexity can best be accounted for by employing the qualitative modes of enquiry.

What is important in pursuing an interpretive qualitative research is that we should be reflexive as researchers who are subject to our predispositions and interpretations that can influence both the researcher and the subject of enquiry (Walsham, 1995). Also unlike in the quantitative method, the analysis of the emergent is a continuous process that is part-and-parcel of the data collection phase and continues throughout the research process (Easterby-Smith et al., 2012).

Interpretive case studies include more than a single qualitative research method. The data generated from the data collection methods employed for this research are primarily interviews and participant observations and – to a lesser extent – secondary documents analysis. The following sub-sections expand on each method presenting its respective merits and shortcomings.

4.2.1. Interviews

The most prominent data gathering method of IS qualitative approach is interviewing (Recker, 2013, p. 90). This is no surprise given that "[the interview] is … the opportunity for the researcher to probe deeply to uncover new clues… and to secure vivid, accurate, inclusive accounts that are based on personal experience" (Burgess, 2003, p. 165). So even when the unit of analysis is the practices involved in appropriating the technology, interviews provide the means, not only to delve into the subject's state of mind, but to provide narratives that "are constitutive of those behaviours" (Orlikowski & Baroudi, 1991, p. 13). Besides, clarifications made through interviews can help us to avoid prematurely reaching conclusions based on fleeting occurrences of observed actions.

However, we should remember that data documented from interviews is not data that is lying around waiting to be collected but is produced as a consequence of the interaction between the interviewer and interviewee. Interviews are a "negotiated accomplishment" (Fontana &

Frey, 2008, p. 144). This is especially the case of unstructured interviews where interview scripts provide the "flexibility, improvisation and openness" (Myers & Newman, 2007, p. 14) of the data to emerge for a practice focused study. However, interviews remain susceptible to the biases and subjectivity of the researcher in interpreting the data. In criticism levelled by positivist and post-positivist commentators (Brinkmann, 2013), interviews tend to be dependent on human subjective biases and judgement, and hence lacking in reliability and generalisability. However, this criticism can be well-placed if the intention of the researcher is to establish from the outset research criteria capable of achieving reliability, replicability, and generalisability; a claim which I do not pursue or believe can be fully attainable. Whether intentionally or not, participants are involved in producing and shaping the data gathered and analysed. As researchers we, therefore, need to pursue 'interpretive awareness' (Weber, 2004, p. ix) in order to reflectively recognise our own inherent subjectivity and limitations in influencing the research claims we are making.

To do so, it is imperative to acknowledge the challenges that are associated with conducting interviews. There is the possibility the participants might not entirely be transparent and even be misleading at times (Myers & Newman, 2007). This is likely due to implicit political and social reasons behind participants' responses. A tried-and-true way to mitigate issues that arise from interviews is by corroborating the data with other participants and even other data collection techniques (Easterby-Smith et al., 2012; Recker, 2013; Yin, 2009). This is the reason for choosing other research techniques, namely, participant observation and secondary data analysis.

4.2.2. Participant Observations

Another mode of data collection central to the fieldwork is the participant observation. What makes the observation research method imperative for my own research topic is that it takes into account the work practices that are intentionally or not left out by the participants in interviews. Moreover, the sociomaterial position adopted in later observation sessions made me be more attentive to the non-social and non-technical material aspects that are crucial for the enactment of the system. So rather than focusing on the meaning behind the participant's language, observation is more directed towards "the practices that make phenomena work, and how these practices entail both meanings and materialities together" (Scott &

Orlikowski, 2014, p. 881). Not to mention that for conducting a practice-based analysis, participant observations can be more fruitful than interviews, especially if the observed behaviour does not coincide with what is being mentioned (Barley, 2015; Goffman, 1959, 1974).

Unlike direct observation, where the researcher assumes a neutral and passive position of an interested bystander, participative observation considers the researcher to be part of the unit of analysis (Recker, 2013). The researchers are participative in the sense that they have some influence on the observed action simply "by sharing of concepts and interpretations with the personnel in the field site" (Walsham, 1995, p. 77). A challenge in observation sessions that may arise is that individuals tend to behave differently when they are aware there are being monitored. Observing them covertly is not a reasonable solution as it may raise a slew of ethical issues. So the challenge lies in the researcher to go through a period of "enculturation" (Recker, 2013, p. 91) to get familiar and be accustomed to the people and work environment. Moreover, the researcher is participative in the sense they do have some influence on the observed action simply "by sharing of concepts and interpretations with the personnel in the field site" (Walsham, 1995, p. 77). Such issues should be taken into account in conducting observation sessions.

4.2.3. Secondary Data

Reviewing secondary documents about the empirical site does provide some insights into the formalised procedures and organisation's background. What documents do is that they "actively construct the very organisations they purport to describe" (Atkinson & Coffey, 2010, p. 77). Organisations tend to produce many documents for internal use such as (brochures, leaflets, meeting minutes, periodical reports) and public distribution outlets (such as newspaper articles, rules and regulations, websites). Indeed those secondary documents acquired throughout the fieldwork did prove to be useful in shaping the background of my case study. Moreover, they reflect what has been stabilised at the time to be the formal discourse, standard operating procedures and ostensive scripts that dictate the delivery of public services through the national ERP.

Nevertheless, we should be wary that secondary documents do not show the hands-on routine practices and decision-making processes (Atkinson & Coffey, 2010) that are undeniably

crucial for working out the technology. Hence, reviews of secondary documents – as the name implies – is secondary to the primary data collection methods of participant observations and interviews. Moreover, secondary data might not be completely accessible due to confidentiality concerns (Yin, 2009, p. 102). This is unsurprising given that the ERP system produces sensitive payroll information for thousands of government employees of the country.

I shall narrate my own fieldwork experience in relation to the methods mentioned above later on (Section 4.4). Before doing so, it is necessary to summarise the experience that granted me access to empirical sites.

4.3. Gaining Access to Empirical Sites through Informal Means

In this section, I describe my experience of gaining access to empirical sites through the informal channels of Wasta. At end of the literature review chapter, I established the significance of Wasta in organisational work in the Arab region, including Bahrain (Section 2.6.2). However, Wasta is not only confined to the subject matter but rather was fundamental in my own research experience to open 'empirical doors'.

Before broaching the role of Wasta in my empirical access, it is relevant to talk about my own background. I am currently employed by the University of Bahrain (which have awarded me a full-time scholarship grant). Also, I have completed my undergraduate studies in Management Information Studies at the same university. This allowed me to be acquainted with academics and practitioners from my workplace. These connections were not only relevant but proved to be essential for me gaining access to the targeted empirical sites. Since I am not bestowed through family connections with an 'affluent' Wasta that have access to the higher the echelons of power in Bahrain and thus could facilitate my quest for empirical access, I had to rely on the Wasta network that belonged to my Bahrain university acquaintances and friends.

Requesting permission for research through formal channels is often susceptible to long delays. This is especially the case for public sector institutions which are notorious for their slow responses. Also, the intended research participants of civil servants in the public sector whom I wanted to participate in my research generally would not speak openly to me without a prior approval 'all the way from the top', preferably the top executives of the organisation's

hierarchical structure. Indeed, if we take Hofstede's (1980, 1983) dimensions scale of characterising the cultural attitude of a society, then the Arab region is designated to be high on the power/distance index with respect to hierarchical structure (Hutchings & Weir, 2006; Khalil, 2011) as well as discomfort and uncertainty and ambiguity (Ali, Azim, & Krishnan, 1995; Danowitz et al., 1995). Despite my reservations regarding such generalisations (Section 2.5.1), this cultural characterisation did indeed influence my preconceptions and led me to resort to my colleagues and acquaintances' Wasta network to be a catalyst for empirical access.

To conduct a study within a Bahraini organisation, it is best to have the approval (and blessing) of the topmost figure in that organisation. Looking for a way to reach out to the head of the HRB, a fellow academic colleague informed me that another colleague is the brother-in-law of the head of HRB. I contacted him with a general description of my research topic and fieldwork requirements. He was very co-operative and informally passed on my request to the president of the HRB. The HRB's president office, in turn, requested me to send an official letter to them about my research objectives. This has contributed to speeding up my approval process with the top-tier managers of HRB.

Similarly, I carried out a similar process to reach out to three other public entities to which the ERP is directly or indirectly related. Again it is through the professional Wasta network of my fellow academic colleagues at the University of Bahrain. The first, MoA, was mediated through an administrative director at Bahrain University. Second, the E-Government Authority was reached out through a previous lecturer from during my undergraduate studies. The third, the door of the MoB, was opened again through another academic colleague who contacted a close friend of his who was serving at the time as the head of HR in the ministry. The common denominator here is that Wasta simplified my access to potential empirical sites. I owe my deepest gratitude for those who aided me and hence making this thesis possible.

One should be cautious as not to consider Wasta as a form of 'magic' that makes things happen. It is limited in its potentiality. First, there are many instances where Wasta did not yield fruitful outcomes. In fact, I received the greenlight for the above-mentioned four government entities but not for others. It is a very idiosyncratic process that may or may not produce positive results. Secondly, even after being granted access via Wasta, it is constrained or limited; as a participant cautioned me "*Ghassan, you don't want to exhaust*

your Wasta till a time arrives where the people from the top instruct us to close our doors when you arrive". To put it differently, it is not practically possible for Wasta to be ceaselessly relied on whenever the need arises. Third, Wasta can also be considered as a double-edged sword. If one's reputation is perceived to be amiss, then his/her Wasta connections may not vouch for them. This is especially the case when an individual expects his/her Wasta to perform an illegal or unethical activity. The risk is particularly amplified given the small demography of Bahrain, where it is circulated that 'everyone knows everyone'. In such community-oriented society, it is imperative for anyone to preserve their reputation in society if they want to maintain their Wasta.

In any case, its contribution is undeniable for the becoming of this thesis. Reflectively speaking, this research provided me with an opportunity to better understand, expand and capitalise my own Wasta network. This in some sense has contributed to my own growing and becoming a better researcher.

Despite Wasta being effective in gaining empirical access, there are academic publications where the empirical fieldwork was conducted in the Arab region but failed to touch upon it in their methodology. There are some that ignored its occurrence altogether (See Al-Ghailani, 2005; Common, 2008) while others went into details about seeking the aid of their network to establish access to the empirical site, but failed to acknowledge it as Wasta (See Alghatam, 2011; Al-Hejin, 2013; Ali, 2010; Common, 2008). Another study (Hill et al. 1998) found out that Wasta was a significant empirical theme but refrained from using the term, settling with the more neutral "family and kinship obligations" (ibid, p. 22). The reasons for this paradox might multi-fold. It can due to the tendency of researchers to perceive their work as primarily based on their merit, or maybe it is due to the controversy it might stir following its (mis)interpretations from influential parties in their circle; or simply that researchers in Arab regions found Wasta to be peripheral or irrelevant in their research. Irrespective of the reasoning behind downplaying or ignoring the cultural practice, these speculations are my own hypotheses, and not based on hard empirical evidence. It is not within my scope to establish their reasoning, but to emphasis the significance and prevalence of Wasta in Arab society.

Designating Wasta to be fundamental in the becoming of this thesis makes this text to be polemic. In the spirit of being forthright reflective on my research, I have been particularly prudent in my choice of words in the writing of this study. Following the completion of my

research, I am still part of this network and intend to be so for the years to come. This peculiar position and background which I find myself in is somehow reflected in my style of writing of this research piece. This is especially reflected in the headings of this thesis's sections. Nevertheless, it is a discussion we need to engage with more when conducting empirical studies in the Arab region and be reflective on how it shapes our writing, and not shy away from.

The following section will summarise my research experience in the fieldwork.

4.4. Research Experience: Data Collection and Analysis

In this section, I reflect on the research journey that eventually produced this thesis. The main objective of the fieldwork was to approach both sides of the story: the developer (HRB) and the users (Ministries) of the standardised technology of interest. The fieldwork was conducted primarily in the IT directorate premises of the HRB, who are the developers and administrators of the national ERP. Most of the fieldwork was conducted in HRB's IT directorate as it is where 'most of the action' took place. Figure 4.1 shows the HRB organisational hierarchy and the sections that comprise the IT directorate. The fieldwork was primarily dedicated to the directorate's sections (that are highlighted bold in the figure). Given how central this organisation is to the study, I have designated the next chapter to elaborate on the historical circumstances of the creation of the HRB and its associated system (Section 5.2).

As for the users of the system, I investigated the technology use within the HR directorates in a couple of ministries, namely, MoA (or Ministry of A) and MoB (or Ministry of B)[3]. The MoA is responsible for all logistical services in the Bahrain: air, land and sea. These include civil aviation, public transportation, ports, maritime affairs, and the postal services. They employ over 730 employees; 15 of whom belong to the HR directorate.

The other ministry, MoB, is responsible for all physical infrastructure of the kingdom. This encompasses the construction and maintenance work of roads and sanitary services across the

[3] MoA and MoB are pseudonyms used for the ministries where the fieldwork was conducted

country. They employ over 1500 civil servants of which 32 are in the HR directorate. Both these government ministries have been users of the national ERP ever since its inception until the present time.

I also interviewed participants in the EGA (E-Government Authority) as they are responsible for overseeing the transformation of the whole country's public services to electronic means. Since the EGA is not under the HRB at present, I focused on the overarching e-government vision of the Kingdom and the role the national ERP has in an ICT-based e-government services.

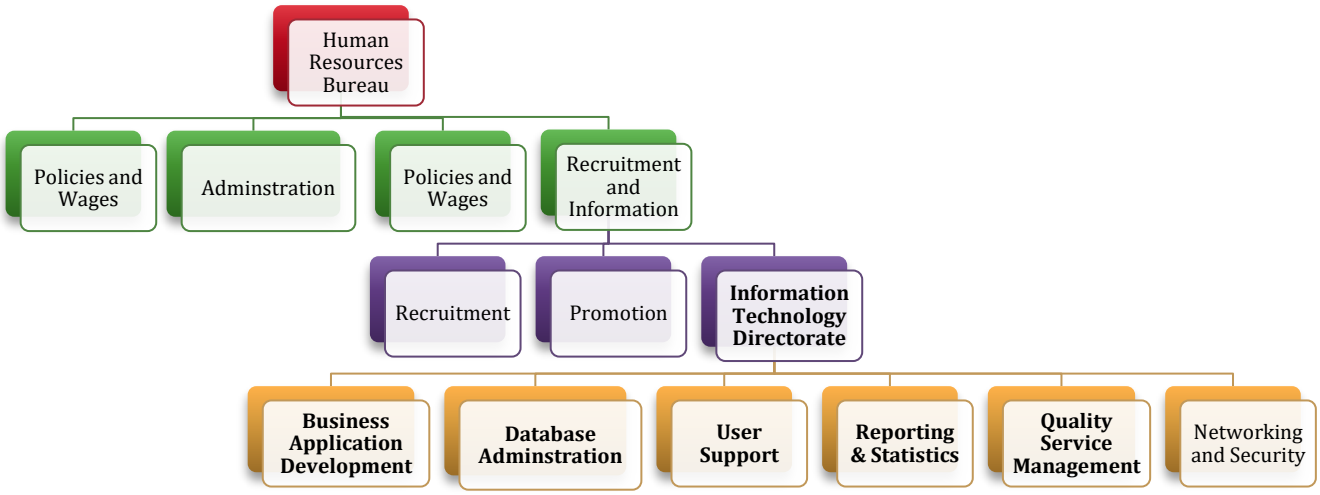

Figure 4.1 The organisational structure of HRB

(The fieldwork was focused on the sections which are in bold)

Due to research and practical purposes, the fieldwork was conducted in three intermittent phases (See Table 4.1). This research design plan allowed me to reflect on the data elicited and accordingly plan which areas to attend to more closely for the following fieldwork phase. On a practical note, the distance of the empirical sites in Bahrain while studying full-time in the UK contributed to pursuing this research design. However, it was productive to understand the national ERP workings by approaching both the technology service provider and its respective users. Conflicting interpretations – and even non-conflicting ones – are of heuristic value as they led me to probe further the underlying conditions that work out the standardised technology (Klein & Myers, 1999, p. 77). The nature of the research is exploratory with the objective of investigating the emergent practices that explain what

makes the ERP system work. Hence the analysis of the data is part-and-parcel of the data collection as it involves iterative coding and referencing to literature as themes (Easterby-Smith et al., 2012; Recker, 2013).

The purpose of the first phase was to target potential empirical sites and establish access. I managed to conduct some interviews with HRB employees to have a general understanding of the organisation and its system. The first phase was the shortest that took place in the months of August and September 2014. During this relatively short period, I was able to establish access to the empirical site, have an overview of the system functionalities and acquire a feel for the premises of the main field site.

The second phase of the fieldwork is when the bulk of the data collection took place. It spanned a period of four months from November 2014 to March 2015. During this time, I conducted 34 in-depth interviews with key participants from the HRB, and user group government entities, especially at the MoA and the EGA. It is during this phase that empirical themes started to develop as I began to move beyond the organisational norms and the local colloquialisms used in the fieldwork, and look at the improvisational work in using the technology.

The purpose of the third phase was mainly to conduct empirical fieldwork with MoB to which I was just granted access. My objective was to investigate further the empirical themes that emerged from the preliminary analysis of the data elicited thus far. This phase spanned a three-month period from July 2015 to the end of October 2015. The advantage of this phase is that my enquiries became much more focused as I developed some traction towards where the research was heading. Some ideas were forming especially following iterative analysis of the emerged data with concepts from theory and literature. Plus it served to close the gap of some missing data in the empirical narratives as they formed from my analysis.

A total of 64 unstructured/semi-structured interviews were conducted across all the phases. The participants were selected based on their involvement with the Horison ERP system. Interviews spanned from an hour to over three hours. Most interviews exceeded an hour in duration. All audio recorded interviews were transcribed and time stamped periodically using the open source web browser application, ‘oTranscribe’. Interviews recorded were transcribed within a week from them happening. Generally, the interviews which were not recorded and my observation field notes were transcribed within a day of two from

conducting them. Mostly interviews and observation were carried out within the HRB premises. This is because the HRB are the owners, developers and managers of the national ERP (Table 4.1). It is as a civil servant in a ministry puts it that "*They [i.e., HRB] are the oasis where all the water pours in and out*". All interviews were coded and analysed using Data Analysis Software, Nvivo.

With regards to participant observation, I have conducted more than 40 hours in-between interviews. Particular attention is given to how the participants interact with the system, colleagues, users and the material environment. I also attended a dedicated demonstration on how different functionalities of the system work. Moreover, I had twice observed first-hand the monthly scheduled payroll processing taking place and documented it in detailed field notes. I approached the participants to enquire about what they did and their reasons for it. A limitation of my fieldwork research is engaging with some participants more than with others. First, the fact that the nature of their work exposed them to interesting emergent activities led me to favour them over others. Secondly, there was ambiguity about which data I was privy to or not. This was owing to the fact that many participants admitted that it is their first time in participating in any qualitative academic research. They were unsure what to reveal or not due to lack of experience as subjects of observations and interviews. Generally, each participant disclosed information according to his/her discretion. This led me to 'shadow' some participants more than others because of their enthusiasm to engage with me more readily. To minimize risking of non-inclusion of other participants, I attempted to include their take on the phenomena of interest whenever the opportunity arose.

For secondary data, I was able to amass a trove of documents pertaining to the organisation and its standard procedures with regards to the centralised enterprise system. Chief among them is the instruction manuals, rules and regulations, circulations, reporting samples and screen snapshots. In my analysis, I found myself frequently referring back to the Civil Service Law book. Its role is not only relevant, but essential in legitimising and shaping the national ERP (more details of it in the next chapter section 5.2). Additionally, I skimmed through Bahrain's newspapers to snip out clippings of the HRB, where it tends to use the national press as a public platform to formally make its official announcements. I also followed them on Instagram social media and even watched a two-part televised interview with the president of the HRB. Nevertheless, I did face some challenges in acquiring some reports outputted by the HRB's system. Given the sensitivity of the data handled, i.e., payroll

of all government employees, I was only able to view it on the premises but prevented from making copies or photos of the documents. The same applied to the system design documentation. Plus, there was always somebody around when I was viewing documents as a cautionary measure. To compensate for that, I would take detailed notes of what I examined.

Phases	Visit Duration	Interviews with HRB	Interviews with user Groups	Total Interviews for phase
First Phase	July 2014 to August 2014	8	0	8
Second Phase	November 2014 to March 2015	20	14	34
Third Phase	July 2015 to October 2015	9	13	22

Table 4.1 Phases of fieldwork research conducted

The fieldwork was exploratory as it was partly inspired by grounded theory (Glaser & Strauss, 1967) and partly by the sociomaterial lens (Barad, 2007; Orlikowski & Scott, 2008). There are merits about following grounded theory as it does not constrain our expectations to a pre-conceived understanding of the research topic. Embarking on the fieldwork with an adamant predisposition to follow a specific theory as a guide risks us being armed with 'a hammer and see[ing] everything as a nail' (Maslow, 1966, p. 15). However, commencing the fieldwork might risk ignoring the current literature on the subject matter (Walsham, 1995). Moreover, no research is ever conducted without at least some understanding of the empirical background and theories (Giddens, 1987, p. 19). In light of being reflective, I have been doing some reading on IS literature with regards to enterprise system and e-government and technology use in general. More specifically, I was interested in sociomateriality in particular which had been gaining increased traction within the IS literature (Jones, 2014; Kautz & Jensen, 2013) and wanted to make use of it as part of my research. This played a role in sensitising me not only to follow technology, processes and human interplays, but also the materials aspects involved. Goffman emerged later when the narratives formulated were pointing towards a dramaturgical interaction going on as per the feedback of my supervisors.

I was initially skeptical of this perspective. However, when I re-did the analysis with the Goffmanesque approach it seemed to work better than anticipated. It eventually served as the formal theory to complement the insights generated from the empirical findings (Orlikowski, 1993, p. 310).

With regards to coding in Nvivo, I read the transcribed interviews and field notes multiple times to conceive a set of generic codes that can help in organising the data. For the first passes, I flagged the passages based on the particular functionalities of the system e.g., leave process, promotions, performance appraisals, payrolls etc. These served as first-order codes of the data (Van Maanen, 1979). The subsequent coding was more thematically informed and included my interpretations of what was going on. These comprised the second-order codes that are my interpretations of what was going on (ibid), for example, codes including such labels as Workarounds and Wasta, Blame Game, Paperwork and Manual Work among others. As a whole, these codes helped me identify and locate passages that shape the narrative of the findings chapters. In summary, this iterative analytical process of data as well as referring back to the literature gradually shaped my thesis in its current form.

4.4.1. Points of Reflection on Fieldwork

A crucial aspect of conducting empirical research in Bahrain is accounting for language. In Bahrain's public sector, the language of correspondence – both written and oral – is mostly Arabic. This proved to be a challenge to me because of the need to document and transliterate what was conveyed. However, this challenge was not unduly strenuous due to a few reasons. First, I am fortunate enough to be fluent in both Arabic and English. Moreover, being Bahraini myself, I am fully at home with the Bahraini dialect of Arabic; and the participants sensing this were more comfortable expressing themselves in our colloquial Bahraini as they would to a fellow Bahraini. This is reflected in the participants frequently using expressions and parlances in every day communication. Second, although the mode of communication was in the Bahraini dialect of Arabic, the Oracle system is in English. So the relevant documentation was available in both English and Arabic. Finally, Bahraini citizens generally are fluent in both languages. This is mainly due to fact that Bahrain has one of the highest literacy and educational systems in the region and English is taught very early in primary schools. Furthermore, most of the participants had a university degree, where the language of instruction was mostly in English. It was often the case that participants switched between

Arabic and English in mid-sentence so as to articulate their thoughts more clearly. This was especially the case when they were using managerial and technical terms. This component of fieldwork feeds into my last point; where I capitalised on their familiarity with both languages. I often returned to the participants to clarify certain key terms when I was transcribing their wordings. These conditions did indeed help to mitigate what was a challenging, yet compelling, process of reconciling language to capture what was being communicated.

I decided to do all the transcribing myself instead of hiring a professional transcriber. Other than the fact that it can be expensive, the reasoning behind this is threefold: First and most importantly, is that I was there at its happening. Indeed, most of what was uttered took place in the context of some particular action observed. I found myself adding comments next to the transcribed excerpts so as to contextualise the text as well as include other pertinent information. Also, doing the transcription myself suggested to me fresh questions and points of interest that I could use during my next fieldwork visit. Secondly, since nearly all professional transcribers in Bahrain were from neighbouring Arab countries, I was uncomfortable having a non-native Bahraini speaker doing the transcription. This is because there was a risk of certain intrinsic nuances of dialect might be lost in translation. Finally, transcribing myself allowed me to connect to the data. Indeed, during the analysis, I found myself many times locating certain transcripts excerpts from memory instead of querying the codes in Nvivo. So despite the long and tedious process of transcription, it has paid off well during the analysis and writing up part of the research.

4.4.1.1 Reflection on Fieldwork's Ethical Obligations

As with any qualitative research, ethical considerations are bound to creep up. This is constitutive of the researcher's role in the fieldwork, i.e., the researcher is not 'a fly on the wall' but central to the whole research process. The very presence of the researcher and interaction performed shape the research method used to elicit data (Barad, 2007). It is not only the researcher who frames what is of interest, but also the informants invariably play a role in conveying what they perceive the researcher wants to hear (Fontana & Frey, 2008; Myers & Newman, 2007). As Law (2004, p. 45) reminds us, research methods do not "discover and depict realities. Instead, they participate in the enactment of those realities". Indeed, it was often observed that the participants would shape their response and behaviour

according to their current audience, i.e., me. These occurrences are laid out in three points: There are those who, being aware of my career background, would frame their responses with hypothetical examples from my university (i.e., University of Bahrain). This is reflected in some excerpts presented in the findings chapter (Chapter 7). Secondly, the participants tend to generally frame their responses according to their preconceived presumptions of the purpose of my research. Many of the participants surmised that the main practical use of my study was to enhance the functionalities of the ERP system or improve the e-government service delivery. This had the potential to alter the phenomena under observation as the participants tended to dramatise and underline the problems with the technology. Third, most of the participants were to some degree aware of the permission granted me from the 'higher ups' of their organisation. However, they were not sure how well I was acquainted with the top management (previous 4.3. section on Wasta). These participants were possibly apprehensive about speaking critically of the parties who had granted me the research opportunity, which might have coloured their responses in the fieldwork. Moreover, this might touch upon the ethical obligation of the study to be voluntarily-based. To ensure this, I consistently reminded the participants that their participation should be voluntarily and they were free not to answer my questions or even terminate the sessions anytime. This is in addition to prompting them to sign the formal ethical forms to participate in my research (Appendix 1 and 2).

The main argument of the above reflection point is that regardless of my conscientious determination to be detached and impartial, it was inescapable that – even by my mere presence at the site – I somehow contributed to the shaping of the emergent research's primary data. The world is a complex world and we are intrinsically part of its shaping (Law, 2008). Even the material apparatuses we deploy for documenting and analysing "are not passive observing instruments. On the contrary, they are productive of (and part of) phenomena" (Barad, 2007, p. 142). Rather than considering the researcher's presence to be a source of observer bias that should be minimized at all cost (Ingold et al., 2016, p. 21), the interpretive research should acknowledge and reflect on such challenges throughout the research.

In the spirit of acknowledging ethical dilemmas, I came across a couple of cases. Fortunately, they were resolved smoothly. One has to do with a couple of participants when signing the consent form (See Appendix 2). A participant, who incidentally was employed as the legal

advisor to his organisation, has consented verbally and was willing to be interviewed but refrained from signing the consent form. I insisted that he does, but he was adamant not to have his signature on any piece of paper. However, he assured me that he would answer any questions I have. Another case happened when another participant asked whether it was acceptable to note down a pseudonym instead of her real name. I admitted that I was unsure if she should have her real name or not. She eventually settled on writing down her first name only. On returning to the Lancaster from my fieldwork, I narrated these cases to the appointed research ethical officer at the Management School. She assured me that as long as the participants have clearly and explicitly provided consent, whether orally or written, then you can use the interview data. These ethical empirical cases might not be turning point dilemmas that can shift the course of the fieldwork; however, it is important to account for such experiences so myself and others can learn from them.

Last point of reflection I want to point out is about my own prejudices with regards to the research topic. Unlike positivist studies which see preconceptions to hinder objectivity and hence the research outcomes, interpretive studies adopt a more flexible approach that takes "prejudice as the necessary starting point of our understanding" (Klein & Myers, 1999, p. 76). Prior to undertaking the research, I was of the impression that that national ERP is a dominating artefact that adds another unnecessary layer of bureaucratic red tape. However, as I have progressed with my research work, my opinion changed in due course. It is not about whether I view the HRB and their centralised system favourably or not. Rather I feel that it is a more complex affair than simply ascertaining that the pan-governmental system is justified or not. Despite studying about it for a few years now, I do not see myself to be in a confident position to pass moral judgement on the stature of the ERP. The issue goes beyond weighing its praises against its shortcomings. It is the complexity of the emergent work practices that makes it difficult to be inclined unquestionably to one side or other. I leave it to the reader to form their own impressions based on what is presented in this text.

4.5. Summary

This chapter presented the methodology employed in this thesis. The focus of the study was the underlying practices that make the national ERP system work. Hence an interpretive qualitative case study was chosen to pursue such aims. The chapter starts with the set of philosophical assumptions that underpin the analysis of the study. Following this, is the rationale for choosing the research design as well as the associated research methods? Then this chapter shifted to presents my fieldwork experiences and challenges in a rather confessional style of writing. This is to emphasise the fact that the role of the researcher is indispensable to the data generation and hence it is important to reflect on my background and how it played a role in shaping the present research.

5 Setting the Scene: Bahrain’s Modernisation and the Implementation and Transformation of the National Enterprise System

The purpose of this chapter is to present a descriptive background account of the case study. Before embarking on the empirical side of the research, it is important to canvas out the historical and political context that drove Bahrain’s public sector to modernise. This is useful to acquaint the reader of the conditions that led to the implementation and shaping of the national enterprise system. Moreover, for the findings of this thesis to be meaningful, we need to trace the trajectory of the system’s reconfigurations over time. This is to capture background on the shaping of the "organisation and its members beyond their use of information technology" (Orlikowski & Baroudi, 1991, p. 18).

However, in so doing, we are making a historical cut in order to provide an anecdotal background for this case study specifically. This chapter is not meant to be a comprehensive

account of Bahrain's history and the ERP timeline. Such an endeavour is neither feasible nor within the scope of this research. The limitation as well as the importance of this background chapter is eloquently expressed by Suchman (2007, p. 284): "How far our analysis extends in its historical specificity and reach, or in following outlines of connection from a particular object or site to others, is invariably a practical matter. That is, it is a matter […] of drawing a line that is in every case enacted rather than given." Thus despite its limitation, this background account is still important to prepare for the subsequent chapters of the case findings.

The chapter is divided into three interlinked parts. It is structured to be a funnel in its sequencing:

The first part of this chapter is written as a historical reconstruction of the events that shaped the system over the years. It is an overview of the historical and economic conditions that shaped Bahrain's public sector. This section facilitates not only an understanding of the current state of affairs, but also provides the reader with a glimpse of the historical and political context of Bahrain. This contextualised description will help to better understand the enactment of the pan-governmental ERP system in the public sector.

The second section of this chapter delves into the background of the public organisation, the HRB (Human Resources Bureau) which has implemented, transformed and enforced the HR system as part of the modernisation effort of Bahrain. It covers the significant events that led to the founding of this governmental body, the HRB, and briefly outlines its main duties. It is framed, while focusing on the ERP technology, to convey the ICT-based transformation the HRB has gone through over the years to become what it is today.

The third and last section is a historical account of the implementation and subsequent transformation of the national enterprise system. It covers the eventful phases of its development. It describes how it developed from a centralised data repository payroll processing system to a sophisticated IT artefact that facilitates self-service e-government services. The following diagram (Figure 5.1) outlines the structure of this chapter.

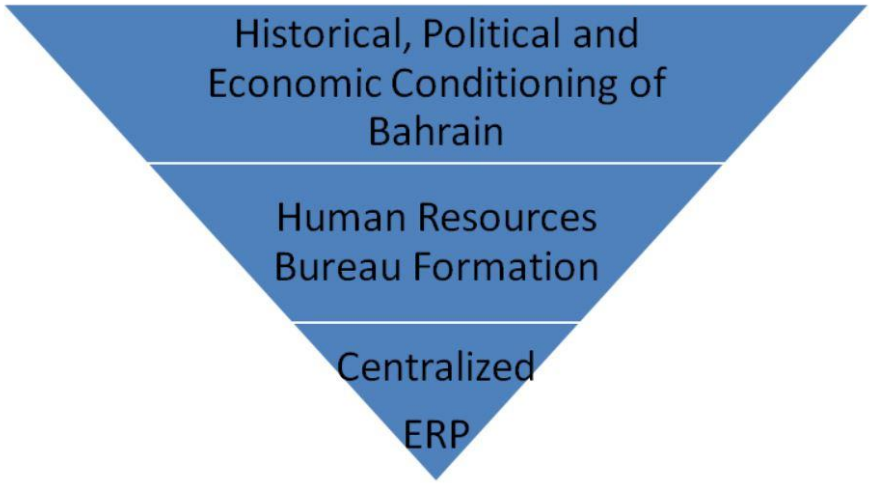

Figure 5.1 The structure of chapter 5

5.1. Historical, Political and Economic Conditioning of Bahrain's Public Sector

Historically, Bahrain has a rich past that dates all the way back to Mesopotamian times. It constitutes a group of 33 islands which are strategically situated in the Arabian Gulf and comprises a total size of about 765 km^2. Over the centuries, the islands were ruled by several peoples, including the Arabs, Ottomans, Portuguese, Persians and finally in 1783 until the present time by the Bani-Utbah tribe from which the current ruling family, Al-Khalifa, originates.

Bahrain additionally became a British protectorate from the late 1800s till its independence in 1971. The British Empire took over Bahrain mainly due to its strategic geographical location in the trade with the Indian subcontinent. The British colonial powers introduced the Weberian bureaucratic system of government to maintain their commercial interests in the region. This form of bureaucracy emerged gradually because there was an imperative for administrative as Bahrain was located at the centre of Britain's trade operations in the gulf (Khuri, 1980, p. 85). Since then, the country was a hereditary emirate where the head of state is designated as the Emir or Hakim (ruler). The British Empire established Bahrain as a protectorate in 1880 and 1892 during the rule of Sheikh Isa bin Ali Al Khalifa. In treaties between Britain and Bahrain, the British recognised the Al Khalifa family as the rulers of

Bahrain. Bahrain remained a protectorate of Britain until its independence in 1971 with the Al Khalifa continuing to be the de facto rulers the independent nation till this day.

Many accounts indicate that Britain had a significant role in the establishment and shaping of a modern government in Bahrain. In 1926, a British official, Charles Belgrave, was appointed as the "Personal and Financial Advisor" to the ruler to aid in the 'development and modernisation of the country'. Bahrain's governmental institutions were centrally controlled by this advisor (Al Bin Ali, 2013; Khuri, 1980), who continued to occupy his position as 'chief administrator' for 30 years until 1956. His work was instrumental in transforming Bahrain's public administration into the modern state it is today. He was responsible for establishing the civil and criminal courts, municipality and police services and in actively supporting the search for oil in the region. What this tells us is that Bahrain's public administration remained historically subject to centralised control and governance throughout the decades.

Bahrain was the first state in the Gulf region to discover oil in 1932[4] (Held & Cummings, 2006). This allowed Bahrain to have an advantageous head start position in developing infrastructure compared to its Gulf neighbours. On the pretence of encouraging foreign investments in the country, the Weberian form of government was leveraged by Britain to secure and maintain the status quo and guaranteeing the free flow of oil within the region (Wright, 2006). Also, the demographic size of Bahrain is relatively small, where an official population census puts it around 143,000 in 1959 (UN, 1960), which increased gradually over the decades to around 1.2[5] million residents in 2010 (UN, 2015). Given the relatively small size of population in the state, a centralised form of bureaucratic authority seemed to be a reasonable form of government to administer the affairs of Bahrain.

The governments of the oil-rich Gulf countries, including Bahrain, are that of a patriarchal autocracy (Ehteshami & Wright, 2007, p. 914), where it is expected from the state to provide free services to its citizens. The economic boom from oil revenue as a result of the sharp rise

[4] Bahrain began exporting oil in 1934. Compare this with GCC countries where oil "was discovered in Kuwait in 1939, Saudi Arabia in 1945, Qatar in 1949, UAE in 1960 and Oman in 1967" (Hejres, 1998, p. 3). It was in 1965 that GCC countries realised that the oil is depleting rapidly (ibid)

[5] Note that the number Bahraini citizens are actually half of this, numbering around 700,000 citizens.

in oil prices in 1973-74, was followed by a large influx of foreign labour workers into Bahrain. Leaving the various, traditional jobs to the foreign workers, the local populace increasingly sought out employment within the civil service. Accepting its role as a welfare state (Hejres, 1998, p. 209), the government of Bahrain was obligated to provide employment to its citizens irrespective of the need to do so.

The bureaucratic administration continued to proliferate in size in order to accommodate the increasing need to provide employment for the local population. To better administer the affairs of the burgeoning civil service employees, the Human Resources Bureau (HRB) was established in 1975, a few years after Bahrain gained its independence from the British. The bureau was entrusted with the primary duty of processing the civil servants' payroll and administering the HR activities of the government departments. Hence HRB occupies the 'special status' of an executive regulatory government entity. This special status corresponds to its jurisdiction which encompasses regulating the affairs of all public officials within government departments. To affirm its jurisdiction over other ministries, the HRB is headed by a President instead of a Minister. Hence, the President of the HRB is not subject to any Minister but instead reports directly to the Deputy Prime Minister (Section 5.2 of this chapter covers the HRB duties in more details).

Economic conditions have contributed to the subsequent modernisation of government. Specifically, it is the depletion of oil, the country's main natural resource. In fact, the oil depleted at such a rapid pace that a published 'doomsday' research (cf. Alumran, 1986) predicted that the island state would run out of oil in a couple of decades. This has not happened obviously, but it emphasises the dire oil reserve situation in Bahrain.

Increasingly aware of this challenge, the government brought down the oil production from around 250,000 barrels/day since the 1930s to a lower, stable supply of 40,000 barrels/day (Ali, 2010). Bahrain relies mostly on the Abu Saafa oilfields donated to it by Saudi Arabia (Common, 2008). Moreover, economics studies indicate that smaller economies like Bahrain tend to have a relatively high government expenditure percentage of their GDP (McKee & Tisdell, 1990, p. 44). Despite this economical constraint, the Bahraini government, being a welfare state, grew in size to fulfil its obligation of providing job opportunities to its citizens. This posed to be a chronic strain on government's expenses. Despite efforts to tap into other forms of revenue, such as financial and tourism services, the dwindling revenue from the oil and gas industries is still by far the most relied source of income for Bahrain. The latest

official census showed that 74% of total exports for the period between 2001 and 2007 (CIO, 2010)[6] to be oil and its by-products. These economic conditions contributed in Bahrain's government to pursue more efficient ways in order to reduce operation costs of public administration as well as clamp down on corruption.

A major political event which was pivotal to Bahrain's government reform was the succession of the current ruler, Hamad bin Isa Al-Khalifa, to the throne following the death of his father in 1999 (Peterson, 2009). Eager to lay his imprint as a progressive ruler, he embarked on a significant transformation of the political governance of the state. As soon as he assumed the throne, he proposed a national referendum to revise the constitution which would transform the state from a hereditary emirate to a constitutional monarchy in what is known as the National Action Charter. In 2001, 98.4% of the public voted in favour of the revised constitution (Ebrahim, 2005). A year after the endorsement of the revised constitution referendum, the emirate of Bahrain was transformed into the Kingdom of Bahrain with a legislative parliament whose members were elected by the public. It re-constituted the ministries to be held summoned and held accountable by the parliament. Indeed, it is during King Hamad's reign that many economic and government reforms took place as compared to his late father's reign. It is even implied that King Hamad to be more of a charismatic leader in the Weberian tradition on account of his enthusiasm for reform (Common, 2008).

The growing awareness of the nation's depleting natural resources propelled the government to invest heavily in infrastructure as well as other industries, namely the banking and tourism sectors. The government of Bahrain's desire to implement an ambitious economic reform manifested itself in 2008 in the form of Economic Vision 2030. The Vision lays out the national strategic blueprint for the whole public sector. The main objective of the Vision was to achieve "sustainability, fairness and competitiveness" in the public sector. The notion behind the reform is to learn from the private sector in order to ease bureaucratic restrictions and streamline all private ventures in the Kingdom. Within a few years, Bahrain emerged as one of the most liberalised economies in the Arab region and ranked 13th globally according to the latest 2014 Index of Economic Freedom.

[6] Ironically, despite that but Bahrain is still not a member of the influential intergovernmental oil cartel OPEC (Organization of the Petroleum Exporting Countries).

Other than economic reforms, significant government transformation occurred in King Hamad's reign regarding public administration, more specifically, the adoption of the Western NPM-inspired 'best practices' in government. The public sector transformation was driven by the desire not only to be an efficiently-run government, but also to be regarded as a global leader in public sector innovation (Jreisat, 2009). It was around this time that elements of NPM (New Public Management) began to surface in the region (Alghatam, 2011; Ali, 2010) and from which Bahrain's Economic Vision of 2030 has its inspiration drawn from. Among the NPM principles are the objectives of better efficiency, accountability and standardisation of the civil service processes. The goal of managerial efficiency in government operation is especially alluring given that Bahrain as a welfare state has 42% of all its workforce in the country under the government's payroll (Selim, 2008, p. 18).

Moreover, by standardising service delivery throughout the public sector, Bahrain could deal with the long-standing cultural issue of Wasta (Jreisat, 2009) which is frowned upon in general (AlQahtani, 2013; Karolak, 2016) (Refer to 2.6.2 for why Wasta is problematic). The HRB's leadership took it upon themselves to realise the Economic Vision of 2030 by transforming their work practices using ICT means. The next section covers in more detail the HRB's role in the modernisation movement in Bahrain.

To summarise this section, Bahrain's public administration has historically been subject to centralised control and governance throughout the decades. With the depletion of oil reserves and a burgeoning public sector, there was an increasing need for a public administration reform. The modernisation of the public sector was triggered following the succession of the current King to the throne. The government issued a national Economic Vision of 2030 which drew its inspiration from NPM principles of modernising the workings of government. Given the historical conditions of centralised governance and drive for modernity by the King, the HRB followed suit and contributed to the vision by modernising their provision of public services.

The following section describes the HRB and its role in modernising its services delivery.

5.2. Human Resources Bureau (HRB) Foundation

The sole purpose of the HRB is to standardise HR activities across the government departments in Bahrain's public sector. The HRB came into being in 1975 by a Royal Decree (no. 76/1975). Over the years the HRB was subject to subsequent decrees of change[7]. The most pertinent to this research is the final revision of the Civil Service law which was ordained in 2010. The Royal Decree by Law (no. 48/2010) – designated as the Civil Service Law – defines the roles and responsibilities the HRB have in relation to other government departments. The law is publicly available and widely circulated among the government entities. As the executor of the Civil Service Law, the HRB seeks to engender uniformly standard rules that apply to all civil servants under the government payroll. Briefly, the HRB is entrusted with the responsibility of overseeing the procedures for recruitment and promotion, processing remuneration and the setting of performance appraisal standards in a bid to reduce operational cost, streamline workflows and curb on corruption. This is similar to other Asian countries where civil service affairs are centrally controlled and regulated by the central government than decentralised to departments as is done in Western nations (Moon & Hwang, 2013).

Currently, the HRB jurisdiction encompasses 38 government ministries and 25 government agencies, comprising a total of more than 50,000 government officials. An important and relevant question to ask here is: Who should adhere to the Civil Service Law (and thereupon the HRB)? The answer is clearly stipulated by Article (1) of the law which states: "…such provisions shall apply to all civilian employees of all Government Entities where employees receive salaries or part of it from the general budget" (CSB, 2013, p. 11; emphasis added). To give some perspective on this, the Civil Service Law applies to virtually all government employees including ministers, directors, secretaries, technicians, farmers, medical doctors, postal couriers, teachers, diplomats, judges and so forth[8]. More than 50,000 government

[7] The decrees that are associated with the HRB include Decree no. 64 of 2004 with regards in re-organisation of the HRB into directorates and Decree no. 27 of 2006 in regards to Affiliations of the HRB. (CSB, 2013)

[8] The security apparatus of the kingdom are not subject of the Civil Service Law, despite receiving their pay from the government. This is stated in Article (1) as well "The provisions shall not apply to the military

officials have their remittances processed by the HRB (and its system) every month. In addition to processing wages, the law designates the HRB the sole authority to create, update, circulate, enforce and audit HR rules and regulations across the government (HRB, 2013). To provide an idea of the authority vested in the HRB, no recruitment, promotion, vacancy creation or even termination of services can happen without the explicit approval of the HRB. When a senior HRB manager was asked whether the HRB is a legislative or executive entity, he responded "*No, we are everything. The HRB legislates, executes, consults, regulates, supervises. This is documented in the law. *opens and reads out the duties of HRB from the law book*... Even in nightmares we appear *laughs**". To describe the HRB jurisdiction more bluntly is to use the Arabic colloquial expression "kul bel kul" which translates as :"[HRB is] everything and anything".

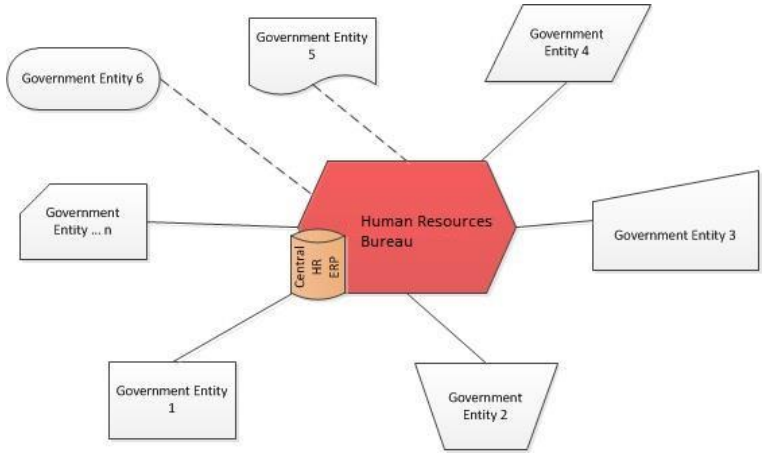

Figure 5.2 The HRB (and its associated centralised system)

caters to virtually all HR matters of Bahrain's government ministries (The box sizes are intentionally made different to emphasis the point that each ministry is different in its own way)

A reasonable question to ask is: How is the Civil Service Law pertinent to this study of ERP technology? A short answer to this is that the ERP system has been designed to execute the Civil Service Law of 2010. For the HRB to enforce the law's rules and regulation, it resorted to the development of a system to uphold its tenets. In essence, the system can be considered to be the very embodiment of the law in its respective stipulations. In addition to the law, the system also articulates in greater details the Executive Regulations. These include the

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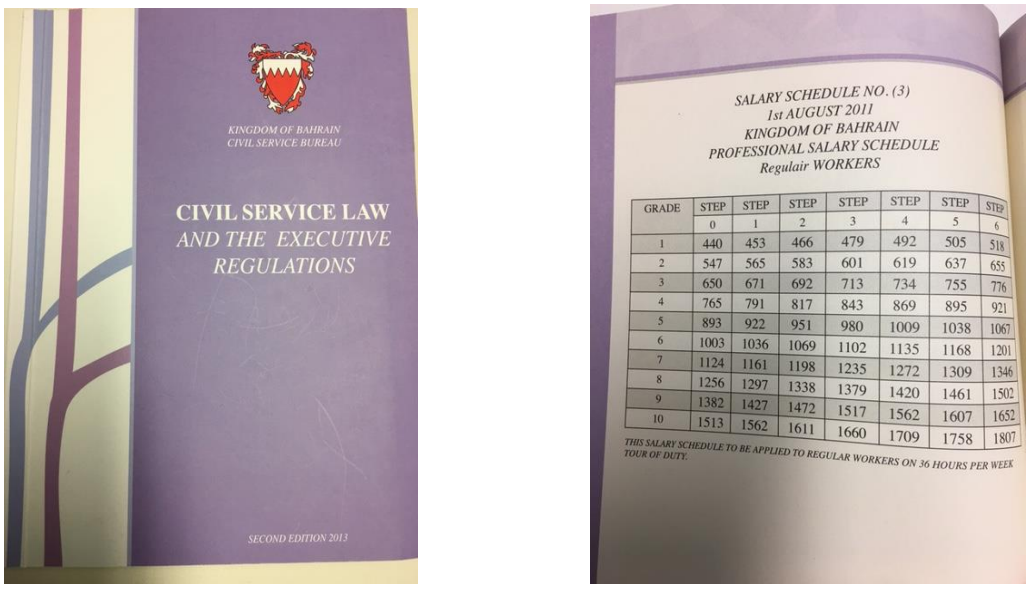
personnel in the Bahrain defence force, Ministry of Interior, the national guard and national agency…" (CSB, 2013, p. 11)

mapping of the pay-scale for every government position (Figure 5.3). Hence, the ERP artefact is codified to incorporate the rationale, assumptions and logic of the HRB.



GRADE	STEP 0	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6
1	440	453	466	479	492	505	518
2	547	565	583	601	619	637	655
3	650	671	692	713	734	755	776
4	765	791	817	843	869	895	921
5	893	922	951	980	1009	1038	1067
6	1003	1036	1069	1102	1135	1168	1201
7	1124	1161	1198	1235	1272	1309	1346
8	1256	1297	1338	1379	1420	1461	1502
9	1382	1427	1472	1517	1562	1607	1652
10	1513	1562	1611	1660	1709	1758	1807

Figure 5.3 Copy of Civil Service Law Book

for which all ministries have to abide by. The right snapshot is a sample table of the pay-scale sanctioned by the law. It is mapped accordingly in the centralised HR system.

It is the system's data integrity algorithm which automatically executes the articles of the law. To illustrate how the system reflects the law we provide the following example: Article (28) of the Executive Regulations titled as "Annual Leave" stipulates in verbatim that:

"*An Employee shall be entitled to annual leave with pay at a rate of thirty (30) work days annually, i.e., at a monthly rate of two and a half (2.5) days, and the Employee may retain unused annual leave credit provided his credit leave does not exceed seventy give (75) work days.*"

This is reflected in the system by automatically adding 2.5 days to an employee's leave credit balance data field. At the end of the year, the system automatically deducts any extra days to round up the number of annual leave credit is equal to 75 days.

This intrinsic association of the law with the system suggests that any violation of the data integrity of the system is a violation of the law itself. It also implies that the HRB (and their associated system) are the 'Sentinels of the Law'.

With the drive of the government to modernise by ICT means, the enterprise system has also undergone several changes over the years to more effectively enforce the law and ensure that government departments adhere to its standardised HR rules and regulations. This brings us to the next section, which narrates the implementation and evolution of the system.

5.3. Becoming of the Pan-Governmental HR Enterprise System

The purpose of this section is to chronologically flesh out the development of the HR ERP and the reconfiguration it has undergone in riding 'the e-government wave' for the provision of public services electronically. It describes how a traditionally centralised ERP has been reworked to provide e-government services.

With advances in technology over the years and a change in the leadership of the country, the ERP's role has been reconfigured from a centralised entity (Section 5.3.2), to a decentralised one (Section 5.3.3) and finally to be a provider of e-government self-service (Section 5.3.4). The following is a timeline illustration of the significant events that shaped the system under study (Figure 5.4):

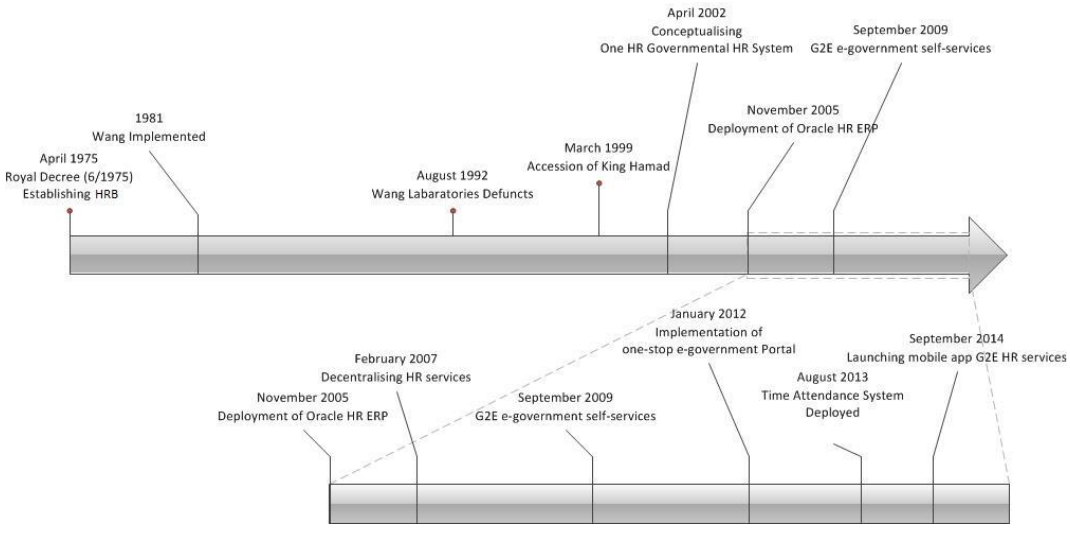


Figure 5.4 Timeline of the configurations of the system undergone over the years

5.3.1. Legacy System: Wang System

The first payroll system the HRB implemented was referred to as the Wang System. It was a legacy system which was in operation since 1981. It served to be a data storage/retrieval software system which processed payroll monthly. The vendor of this legacy system was Wang Laboratories (which filed for bankruptcy in 1992 and after a series of restructuring and merging, is now defunct). This legacy system was based on COBOL flat-file which operated on an IBM RS/6000 server model with a capacity of 256 MB. The mainframe server itself was said to be stored in a 'huge modular steel cabinet with blinking lights'. Co-axial cables were used to connect the mainframe server to the terminals. In each floor, there was a single terminal which was operated by an assigned employee from each directorate.

In comparison to today's advances in ICT, the Wang system suffered from significant technical limitations. One is that its database was a sequential file. This rendered the manipulation of data to be tedious and tricky. The system only produced structured predefined reports with no means to adjust its output. A major problem which plagued it was that the user groups (who are the government ministries) cannot access the system. So the ministries would periodically dispatch to the HRB many stacks of paper forms to input and update the system's data. These data entry tasks ranged from systematically inputting annual leaves, changing bank accounts to recruiting new employees. It took days, if not weeks, for employees within ministries to receive a response to their requests. Moreover, it would take longer if there was an issue with the request itself, such as incomplete or invalid paperwork. Besides, all correspondence between the HRB and the government departments was via the conventional mail post.

Due to the archaic technological make-up of the Wang system, the role of the HRB was mostly confined to data entry tasks. The current HRB IT director attests that "… the Wang system is terrible... everything is done manually. It was old, no proper controls, does not reflect the bureau's regulations… we had to do everything ourselves". The lack of networking capabilities meant that all inputting and processing had to be done on the HRB premises. As the former HRB IT director succinctly puts it "*So instead of the HRB having an HR development role, it is busy doing operational works*." It was thus inevitable that this system would be replaced. This replacement came about with the reinvigorated drive to modernise the public sector at the turn of the century.

5.3.2. The Advent of Oracle HRMS ERP: Horison

The Bahraini government, including the HRB, has undergone rapid development changes following the current King's accession to the throne in March 1999 and his subsequent reformative political and economic policies (Section 5.1 of this chapter). With the advances in ICTs, the HRB decided in early 2002 to search for a suitable enterprise system which could help them better manage the ever-growing public sector. Given (a) the relatively small demographic size of Bahrain, (b) the lack of demarcated forms of central and peripheral governments, (c) the historical centralised form of governance of the past decades, and (d) a way to uniformly enforce the civil service law across government, the HRB opted to implementing a single centralised HRMS enterprise system to manage all the data processing of the state's public officials.

A tender specifying the requirements of the HRB was drafted and proposed. The choice eventually rested on two vendors of international repute, Oracle and SAP, to develop the proposed required ERP. According to the IT director at the time "*We chose in the end Oracle … because they were the leading company in the HR field… SAP was more costly, and it was very difficult to have implementation teams.*" Consequently, Data Mass, an India-based vendor was given the task of implementing the Oracle ERP system with the aid of a local consulting company. The Bahraini company did the required analysis and sent it to Data Mass, which did the coding and then sent it back for testing. The implementation process spanned a total of 3 years from 2002 to 2005 with a cost of roughly 700,000 BHD (around £1.4 million). The development style was 'as-is' i.e., they minimised the customisation of the system. The following remark is from the current IT director (who was a programmer at the time) provides the rationale behind taking the vanilla development approach:

> *"We restructured all of the formula only (i.e., application-level rules). Don't forget we took a package, <u>we did not customise</u>… We corrected the formulas, the processes, and all procedures that is suitable for Bahrain… Reason is because if we customised it, it will create future problems if we want to upgrade the system.*
> *– IT Director at HRB*

However, a current senior programmer at the HRB added that despite the system being purchased off-the-shelf, there is still room to add functionalities to it that touches upon the application level of the software:

> *"The customisation we did not do at all. We took it as-is. However, things like adding an allowance or some changes we can do it. Because it is changes to the application level, we can do it. Customisation means that you change the screen, change the setup. But the configuration of the application is very simple." – Senior Programmer at HRB*

In early 2005 the Oracle ERP payroll processing was tested in parallel with the Wang System for a period of 6 months. A cut-off date was set at November 2005 as the date when the newly developed system, dubbed 'Horison', would process the first payroll alone. Since then, the HRB has severed its ties with Data Mass as it took the reins of the technology's development and patching. Even Oracle Company is contacted sparingly. Generally, these contacts have to do with the periodic technical updates and bug fixing the system. Over the years following the system's deployment, the HRB's IT directorate took it upon themselves to do any modification or to append any bolt-on or bespoke functionalities to the system.

In the first year following the Horison system going live, it mainly functioned just as a payroll processing system. In effect, it did not operate differently than the previous legacy system. The ministries would continue to send paper forms to the HRB to input in the system. This payroll processing workflow continued well until the end of 2006. In 2007, the newly appointed IT director decided to realise Oracle's full potential as an enterprise system.

5.3.3. Decentralisation of a Centralised System

Given the workflow did not change much from the days of the legacy system, the HRB determined to capitalise on the newly implemented Oracle Horison features. "Why should I bring the person all the way here and enter the data. Why does he not do it from his place?" was the going rhetorical question at the time. The HRB management decided to 'decentralise' the Horison system. What is meant by decentralisation here is to delegate at least some of their operations to the government entities. So by 2007 the HR personnel of government entities were granted access privileges allowing them to input and modify some of the data

elements within the Horison. These include the inputting of the employees' leaves to the Horison system directly, which was previously especially burdensome and tedious to the HRB's employees.

This restructuring of the workflow had profound implications in the way HR is conducted in government. Most notably, it transferred a significant chunk of the workload from the HRB to the ministries. As a consequence, the Operations directorate – one of the largest directorates in the HRB at the time – was made redundant; with its employees either took early retirement or joined other directorates within the HRB. It was primarily responsible for data entry operations and was in existence since the founding of the HRB. The following statement attests to the substantial work reduction by delegating its data entry to the ministries with regards to annual leaves:

> *"We thought of how to go out from this [data entry role] and make this go out for the government ministries… We started with the services which take a lot of time to do. We started with leaves. Imagine that more than 30,000 employees' leave forms come to the HRB… There is a lot of cost saving we can do from getting rid of this. So we decided from this date forth, it will not happen in the HRB, but… the ministry itself will do the data entry."– Former IT Director at HRB*

This positive experience with the technology has motivated the HRB to reflect and re-engineer all their workflows. From then on, more services were gradually devolved to the HR government ministries. According to the HRB management, the reconfiguration of the system marked a shift that transformed the HRB from that of a mere centralised administrative role to one more of an 'HR development' role. The application layer of the system was constantly re-configured locally within the HRB by the Information Technology directorate (See figure 4.1 for HRB's organisational chart). As consequence of revision of HRB processes through ICT means, the Information Technology directorate is considered to be probably the most crucial 'backbone' directorate for the whole HRB.

A number of HR functionalities were gradually augmented to the Horison in addition to the Payroll Processing and Leave Application System. These include the Performance Appraisal System, Quality Information Data System (QIDS) and most recently General Time Attendance System. These HR public services have further undergone another phase of re-engineering to develop them into e-government self-services. The difference this time to the

centralised ERP is that the HRB reached out directly to the intended users i.e., government employees, instead of intermediaries who are the HR personnel in the ministries. The next section details this ERP e-government self-service transformation.

5.3.4. Reaching out to the Employee: Enterprise System as Provider of E-Government G2E Self-Services

This section is about the final transformation stage the centralised ERP has undergone to participate in the provision of the e-government services. In 2007, the Bahraini government founded the E-Government Authority which set forth on a mission to be a leading regional contender in the adoption of e-government services to the citizens. According to its official website "e-Government that is committed to providing all government services that are electronically integrated, be the best of its kind and is available to all through the channels of their choice" (Bahrain.bh, 2015). As part of this national strategy, the HRB has been given the responsibility of being the caterers of the G2E (Government-to-Employee) services in Bahrain. In 2009, the HRB again re-engineered some of their services to ministries. This time the objective is to bypass the HR personnel in ministries and reach directly to the government employees. This is to cut processing time having HR personnel intermediaries processing requests that can be automated by the Horison. So far, a couple of these e-government services which are accessible from the one-stop e-government portal[9] include viewing and updating their HR information, viewing payslip and training module (developed in-house in 2012). The following diagram (Figure 5.5) is a screenshot of the e-government portal:

[9] The portal's website is https://Bahrain.bh. The G2E services provided by the HRB are a few among over 160 e-services provisioned by other government bodies.

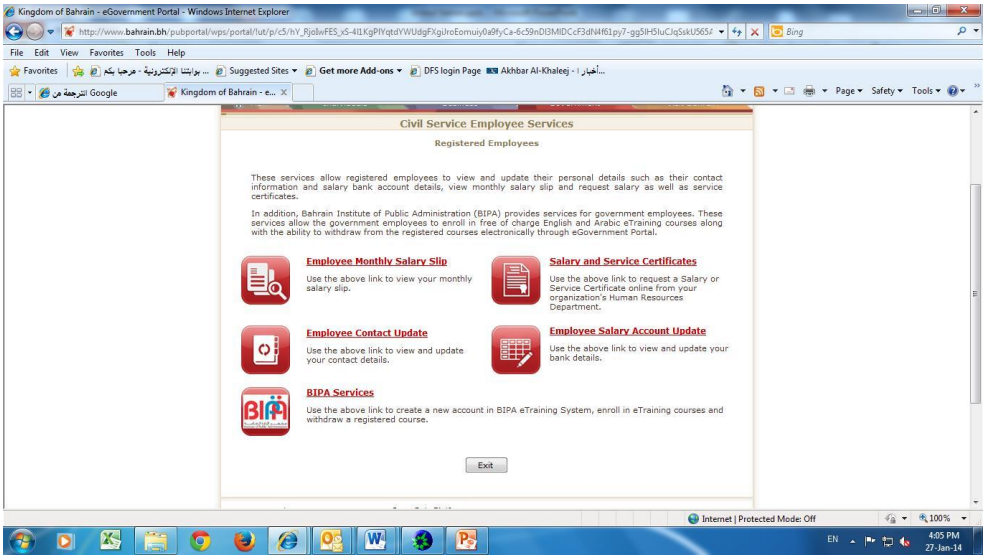


Figure 5.5 Screenshot of the main screen of the e-government portal displaying the G2E services currently provided

The goal of the re-engineered G2E public services is to transform them into paperless electronic format. To do so, the HRB relied on ICT to be included wherever possible to substitute the human counterparts in public service delivery. In other words, what distinguishes this phase of transformation from the previous decentralization is to reach out directly to the users without the oversight of the HR personnel in the ministries where the users are employed. The following diagrams (which were presented by the HRB at a UN conference) illustrates the phases of re-configuration Horison ERP has undergone over the last years (Figure 5.6) and the set of procedures eliminated and the respective benefits gained from such transformation (Figure 5.7):

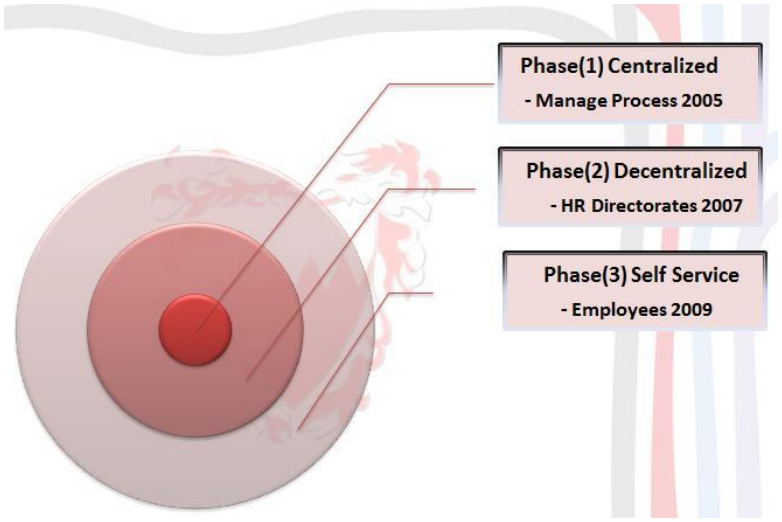


Figure 5.6 Phases in which the Oracle HR ERP has undergone

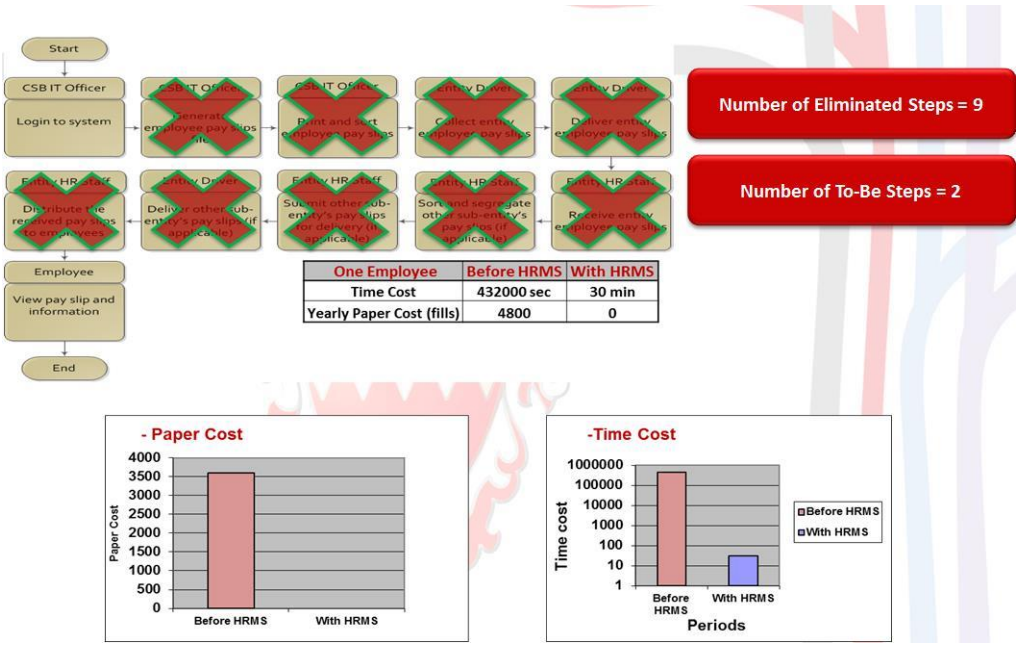


Figure 5.7 Slides about gains in operational efficiency
and cost due to G2E e-government self-service.
Source: HRB Presentation Slides in a UN conference

In its bid to implement e-government modernisation, the HRB transformed the ERP to make it accessible to the designated users i.e., the public officials in the ministries. In April of 2014, G2E e-services began to be rolled out on portable devices which are accessible from the e-government mobile app (Figure 5.8). As the snapshots show, there are currently limited HR self-services an employee can perform, such as viewing their HR information and performing some changes to their bank account and contact details. Nevertheless, it is another

e-government transformational step to disintermediate the HR personnel and paperwork to conduct basic yet essential HR functions. Also, it is expected that more mobile services will follow. All this shows the HRB is seriously committed to Bahrain's vision of 2030 and thus to modernise the public sector workings.

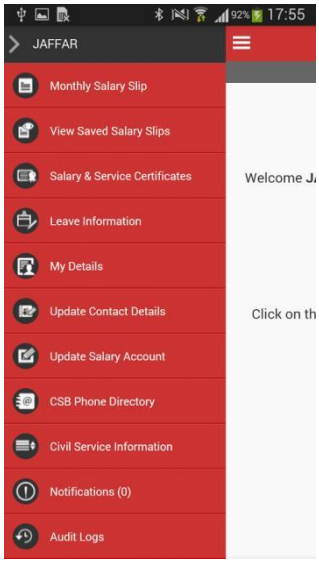


Figure 5.8 Screenshot of the mobile app of G2E e-government services

Indeed, in their publications on media outlets, the HRB frequently touts their success stories emphasising the advancement of their ICT-dependent service delivery. The following snapshot (Figure 5.9) is just a sample of the graphs the HRB officials publish. What they particularly want to portray is the success of HRB in effectively handling increasing public services requests year by year thanks to the ICT-based government transformation.

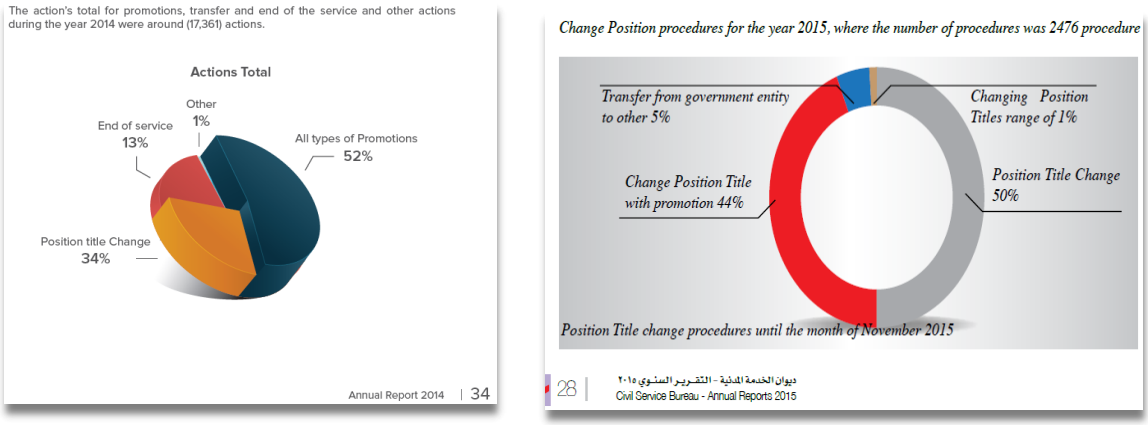


Figure 5.9 Annual reports published by the HRB for years 2014 and 2015 respectively.

They intend to highlight the efficiency benefits of employing technology in the HR workflows across government. These charts specifically demonstrate the increase in processing promotion

requests of the clients (i.e. ministries) through e-workflow through the centralised system. Source: Annual Reports of HRB 2014 and 2015

To conclude this section, the HRB e-government transformation of the centralised ERP is part of the national strategy for ICT-modernity in Bahrain. Indeed, the ICT-based transformation has enabled the small kingdom to achieve a great deal in a short span of time especially relative to other nations. Based on the latest United Nations biennial E-Government Survey report published in 2016, Bahrain was ranked the first among the Arab nations and as 24th globally[10] (UN, 2016). This international recognition of Bahrain's achievement in term of ICT advancement has intrigued me to find out the ways that made this accomplishment possible. In other words, I wanted to unravel the 'behind-the-scenes' actual practices of delivering public services in Bahrain of which the centralised ERP is part. The next chapter presents my findings concerning the workings of the centralised system.

5.4. Summary

Before embarking on any empirical or theoretical analysis of the case study, it is important to establish the anecdotal socio-historical conditioning that shaped the standardised system of interest. It is through "exemplary historical moments and episodes" (Law, 2008, p. 629) that we begin to learn how this system came to be at the time of the fieldwork. The purpose of this descriptive chapter is to provide a background to situate the case study research. It does so by exploring the conditions that shaped Bahrain's public sector over the years, the public organisation where fieldwork was conducted (i.e. the HRB), and finally the system's development and its evolution (i.e. Horison).

In brief, with the political transformation of the emirate of Bahrain to a constitutional monarchy following the accession of the current King Hamad to the throne, coupled by surging ICT advances in the last decade, the island nation has undergone a rapid modernisation reform in the public sector. Eager to leave his mark early in history and address the economic strain on government resources, the king's government capitalised on

[10] In the previous UN E-Government Surveys, Bahrain was ranked 36th globally in 2012 (UN, 2012), then jumped to 18th in 2014 (UN, 2014). Despite being positioned 24th globally in 2016, the Kingdom is still is the ranked the best among the Arab countries.

rapid advances in ICT in the last decades in its pursuit of a “modernised” government. The HRB, like other government bodies, is actively involved in the ICT-mediated public sector transformation direction. With a Royal Decree, the HRB is entrusted with the handling of the HR affairs of civil servants throughout the Kingdom. By embracing ICTs, it achieved the objectives laid out by national strategy in the Economic Vision 2030. The public organisation succeeded in reconfiguring the centralised HRMS ERP to be the provider of e-government G2E services. As Orlikowski reminds us : “Technologies are… never fully stabilized or "complete," … they continue to evolve, are tinkered with (e.g., by users, designers, regulators, and hackers), modified, improved, damaged, rebuilt, etc.” (Orlikowski, 2000, pp. 411–412).

This chapter has traced the evolution of the ERP from a centralised data entry repository to one at the helm of G2E e-government services delivery going through three milestone phases of transformation using ICT-means. The following two consecutive chapters will look into specific workings of this centralised system within their situated context.

6 Working out the QIDS (Quality Information Data System)

This chapter deals with the work practices involved in the operation of the centralised HR ERP system in Bahrain. It is the first of two chapters dedicated in their entirety to the empirical findings. More specifically, this chapter examines the work practices involved in the execution of the 'quality' monitoring functionality of the universally imposed ERP system, called Quality Information Data System (or simply QIDS from henceforth). It narrates the practices involved in realising the objectives of the modernisation of the public sector through ICT-standardisation in conjunction with the local socio-cultural practices of Bahrain. In short, this chapter is about the use, the abuses of the QIDS, and the informal ways of Wasta in overcoming the abuse of QIDS thanks to the technology.

This chapter is crafted in such a way as to provide a narrative of the practices that unfold in the empirical settings. The first section (6.1) is a description of the intentionality of the quality tracking system by its designers. The following sections have more to do with the actual working out of this particular feature of the system. The first part of the empirics (6.2) covers how the system is worked out internally within the HRB. The later section of the findings (6.3) focuses on the involvement of the QIDS in delivering public services, with the focus on how the peculiar socio-cultural practice of Wasta is intrinsic in its provision.

Note that this chapter is written so as to report the emergent empirical findings, and so does not delve into a conceptual discussion. Analysis and discussion of the emergent empirical themes are reserved for later chapters (chapter 8 and 9). The reason for this is to avoid engaging in an analytical discussion early on before laying out the empirical groundwork.

6.1. Functionalities of the QIDS

This section provides a descriptive account of the 'ostensive' aspects (or expected workings) of a specific functionality of the standardised central system i.e. Quality Information Data System (or QIDS). Before embarking on the practices involved in using the system, we need to canvas out the workings of this particular functionality.

The QIDS functionality is a bolt-on application to the centralised ERP with the overall purpose of improving the 'quality' of public services. It does so by recording the services done by the HRB officials to ensure the "transparency, measurability and efficiency of the actions of public administrators" (Cordella, 2007, p. 270). The main purpose of QIDS is to monitor the status of the public services handled by HRB officials. Like other functionalities of the centralised system, the in-house team of the HRB's IT directorate developed and implemented the QIDS in-house. A reasonable question to ask is why the HRB's IT team developed such a tracking-based sub-system for the Oracle HR ERP system? The short answer to this question is that the HRB is ISO accredited.

In harmony with the general direction of modernising Bahrain's public sector, the HRB reformed its managerial practices to conform to internationally recognised standardisation to 'ensure quality for all the services provided to its customers and clients'. To do so, the HRB sought to be certified with the international ISO 9001: 2008. What ISO 9001 addresses explicitly is the standardisation of the quality management system where the accredited organisation aims to "demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements" (ISO 9001: 2008, Abstract). As in other ISO standards, it provides a set of generic quality standards guidelines to be followed by the certified organisation. The QIDS thus serve to be the technical manifestation of the ISO standards, which the HRB avowed to maintain. Moreover, the reports produced by the QIDS are vital to the directors of the HRB as they provide them with real-time data about

how their employees are handling public services. QIDS-generated reports are useful for decision-making, performance appraisal, auditing and, more importantly, demonstrate that the HRB are determined in their adherence to the international ISO standards.

To provide a glimpse of how the QIDS work, let us take the example of processing promotion and allowance requests from ministries. Every service performed by the HRB's government employee has to be recorded in the QIDS so as to live up to the requirements of its accredited ISO. To ensure 'standardised and fair treatment' to all government officials, all promotions and allowances in government require the final approval of the HRB's HR specialists. This blanket delegation of authority to the HRB is stated in the Law Decree No 48/2010 that is promulgated as Civil Service Law of 2010. For instance, with regards to promotion in public service, Article 14 (titled 'Promotion') stipulates that "An Employee shall be promoted on the *basis of merit* by a decision from the Relevant Authority[11] *subject to the Bureau's Approval*". And the following statement "The Bureau shall formulate a promotion system providing controls for merit and for the entitlements of the promoted employee in accordance with conditions prescribed by the Executive Regulations" (CSB, 2013, p. 19 my emphasis). Therefore, by Decree, the King of Bahrain delegates to the HRB the authority to dictate the mechanism of promotion, along with its relevant entitlements (Section 5.2). Hence, one of HRB's many duties includes having the final say on requests for promotion and allowance entitlements.

To put the relationship of the HRB with its 'clients' (the ministries) into operational perspective in light of the QIDS' role in it, consider the following scenario: An HR official in the Ministry of Health inputs a service request in the centralised HRB system to grant a doctor an on-call allowance because his schedule has been shifted to night time. As soon as the service request enters the system, the QIDS automatically allocates it to one of the HRB allowance specialist employees. The HRB allowance officer reviews the request for completeness and validity before approving it. Once approved, by the employee concerned, it

[11] Relevant Authority is defined at the beginning of the Civil Service Law book as "The Minister or the President of the Government Entity." (CSB, 2013, p. 12) According to the legal advisor of the CSB who I interviewed, the law does not dictate the inside workings of processes to nominate a government official for promotion in ministries. The role of the CSB is just to ensure that all the promotion conditions as stated by the law and its executive regulations are satisfied.

is sent via the system to the employee's direct supervisor in the HRB to confirm or reject the decision.

The QIDS calculates the days it takes to complete the request. Depending on the "Type" of service requested the deadline number of days to complete the request varies. For instance, a request for a statistical report preparation has a maximum deadline of 8 working days; a project service type, on the other hand, has an 80-workingdays deadline to complete and so on. When the processing of a request is completed, the system updates its records with the specialist's decision and the request is closed. The employee in the Ministry of Health who initiated the request is informed of the decision via the system. Figure 6.1 is a diagram that illustrates how the allowance provision workflow is carried out.

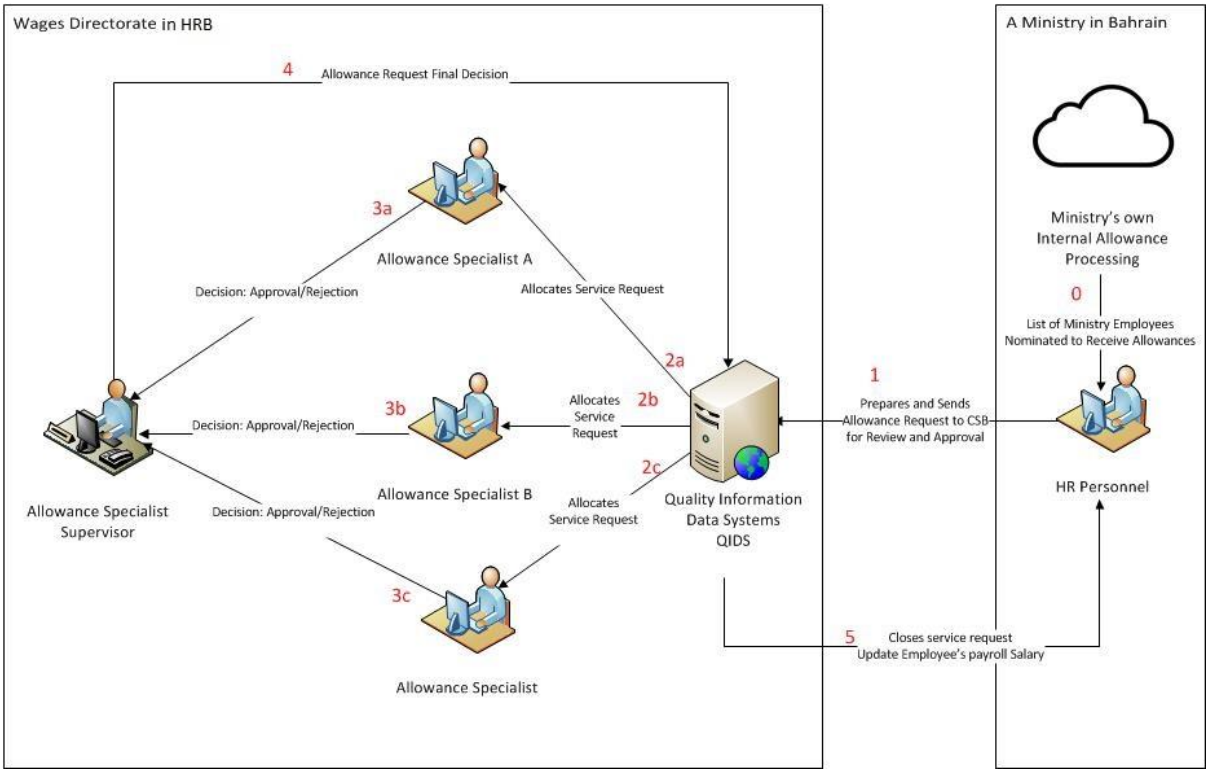


Figure 6.1 G2E Workflow model

that shows the route taken by an e-government service, e.g. granting allowance wages to public official employed in Bahrain's government

The whole allowance service processing workflow (along with all other HRB services workflow) can be initiated through a variety of mediums. In the cases where a service request is not sent via the system (e.g. sent via email, a phone call or an official letter) it has to be

inputted manually in the QIDS by its recipient. A common, but more formal, service request generally takes the form of an official letter from a ministry to the HRB. An example of such formal letter requests to the HRB is request to design a specific report that displays the data of their employees' training during the past year. Ideally, HRB employees should immediately record in the QIDS any non-electronic service request they receive.

The QIDS acts as a mechanism to record and track HRB employees and to hold them accountable for their work deliverables. If a HRB employee, for any reason, does not complete the service recorded in the QIDS within the number of days assigned to that particular service, the service request will automatically be logged in the employee's NCR (Non-Conformist Report). The NCR is the list of all services a HRB employee is assigned but has not been completed within its allocated period (Figure 6.2 is a screenshot of the NCR). If a service becomes an NCR, the HRB employee has to 'justify their actions'. This is done by choosing among a set of pre-defined reasons in a dropdown list. The list of choices is general and ambiguous in their meaning. A sample of these includes Lack of Time, Lack of Management Support, Lack of Resources and so forth.

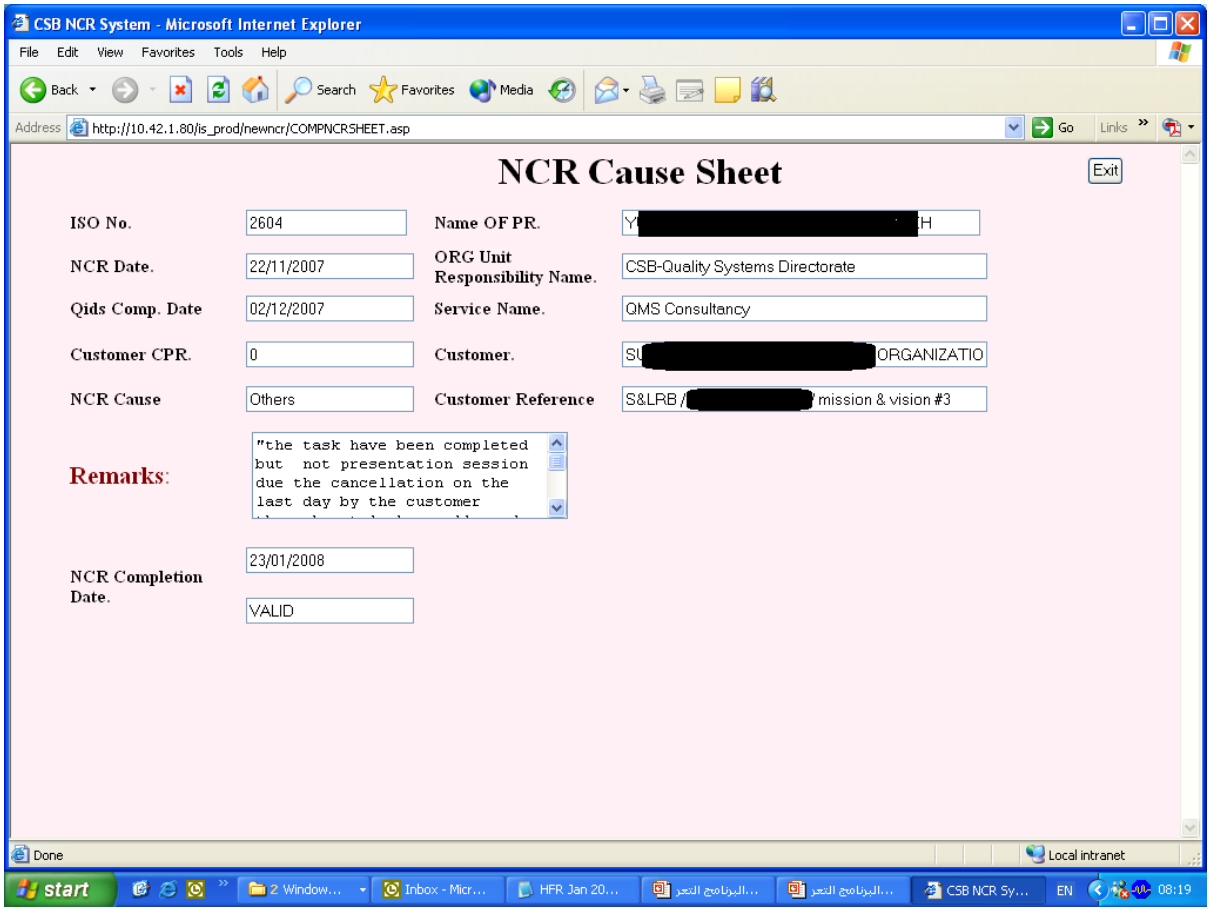


Figure 6.2 Screenshot of an NCR (Non-Conformist Report)
which shows the HRB official entering the reason why the assigned work request is not completed in the expected completion date

The QIDS, as with any technological artefact, is designed with certain technical features and restrictions. The feature worth mentioning here is the system's role privileges (or authorisation rights of certain roles to view services recorded). To frame this as a question: What rules govern the privileges of viewing the assigned services to other employees within the HRB? The QIDS allows all employees of a directorate to view any employee's services assigned to a colleague within the same directorate. However, the system does not allow employees of a directorate to view the services assigned to employees of another directorate. For example, Ali from the User Support Section in the IT Directorate can view in the QIDS the service details assigned to Ahmed in the Reporting Section of the IT Directorate, but cannot view the services assigned to Fatima in the Promotion Directorate. The system also allows employees to transfer the services they can view to themselves or others within their own directorate. Following on the same example, Ali decides the service assigned to him has an issue with printing HR reports transfers it Ahmed in the Reporting Section.

Another relevant feature of the system that is vital to look at is that the data generated from the QIDS is confined within the HRB. The government departments are not privy to the working days assigned to each service request. Such information is not publicly disclosed to the government departments. In other words, it is for 'internal' use only. (This authorisation characteristic of QIDS will be relevant later this section)

This section has presented descriptive accounts of the QIDS capabilities and workings in the provision of public services. The next section will unravel the actual practice of using the QIDS in everyday government work.

6.2. Executing and Performing Quality Evaluation Internally

The main metric for evaluating an employee's work through QIDS is primarily based on the 'number of services completed'. The list of services recorded as completed in the QIDS has the possible consequence of framing the employee in question as being productive or not. As indicated in the previous description of the system's workings, the purpose of QIDS is to provide a tool for measuring the 'quality of services' HRB employees provide their 'customers and clients'. An employee with many services 'recorded' as completed and closed in the system is an example of a 'productive' employee. Whereas, if another employee who hardly documents his/he services, or has many NCRs (Non-Conforming Reports where the employee did not finish the service within the time assigned) he/she would be considered 'unproductive'.

Given this constant measuring employees' 'work production output', the QIDS, in a way, acts as a panopticon. This is to instil within the HRB employees a sense of being regularly monitored. Such workplace configuration hopes, in fact, to incorporate self-disciplinary behaviour by HRB officials. The director of Quality Assurance at the HRB expresses this rationale by indicating that:

> *"Not all of the fingers of your hand are equal. There will be those who really want to help, and there are those who want to play around. If you don't keep a system to monitor him [i.e. the employee], or to correct him, then he will not work properly." – Director of Quality Assurance Directorate at HRB*

The QIDS performance monitoring system is a way to standardise the activities and even encourage healthy competition among the staff, which is part of the public sector ICT-based transformation. However, as with any imposed standardised technology artefact, it is operated differently than the expressed intended purpose at its inception.

Indeed, there are discrepancies in the framing of employees as being productive or not by the system in contrast to what is actually happening on the ground. For instance, there are employees, who are not keen on recording the services they completed in the QIDS. It is common for such employees to refrain from documenting the services they completed during their working hours, as reflected in the following statement:

"Currently, this practice [of not recording in QIDS] happens a lot, from the pressure of the work we don't have time to enter it. Actually, my director does confirm that I finish services [required of me], but I don't have records of them in the system... So it [i.e., QIDS] does not show the volume of work I have done." – Head of Reporting at HRB

Indeed, the participants have expressed discontent with the system's limitation. It cannot capture the nuances, and at times idiosyncratic work required to complete services. The service requests are situation specific. They can be ad hoc as they range from an unaccounted walk-in from the supervisor to a call from a friend in a ministry, and which vary in the effort required to address them. At other times, tasks take more work than initially anticipated as many in the HRB receive sporadic urgent work requests in the middle of processing what is at hand.

The IT director, however, is not entirely convinced by this line of reasoning. Indeed, she disapprovingly mentions those in her directorate who are not in the habit of recording their services:

"It is a single screen only, you receive a request and since you are already reading it, enter the data, like the date you received it, which ministry you received it from, what type of service it is and that's all… There are things given automatically to you, like the due date. But our friends here [referring to her employees] are making it a bigger deal than what it is." – Director of IT Directorate at HRB

Other than the disparity between what is recorded and what is experienced, there are also discrepancies among the employees in taking the QIDS seriously. There are employees – especially those who are newly employed – who are relatively more diligent in recording their services than their senior counterparts. The following statement confirms this:

"R: What about a new employee?

*P: New employees will record *smiles*. I am thinking of hiring someone in my section just to enter the services I have done in the QIDS *laughs jokingly*." – Head of Reporting at HRB*

In any case, if there are possible implications for using QIDS or not, it is very much contingent on the discretion of the director. I asked a HRB employee who is assigned to be the Quality Team officer[12] about the consequences of not using the QIDS. He replied ambiguously:

> *"Umm, I don't know because it is in the hand of the director. Maybe the director at the end of year checks the achievements of all employees. Number of services they have done. Based on this, it can affect [the awarding of] incentives rewards and [eligibility for] promotions" – IT Directorate's Quality Team at HRB*

Irrespective of the consequences of using the QIDS or not, it has a significant role in the portrayal of the HRB officials work 'quality'. In a way, the technological artefact empowers the line managers to respond according to the 'objective data' placed at their disposal. As implied in the previous statement, the result may be used to nominate an employee for promotion, or it may serve as ammunition to undermine an employee's work when 'things turn sour'. We may wonder what action (or inaction) the director may take in accordance to the system's output. A reasonable answer to this is that directors are subjective humans, and hence may demonstrate variance in their response to data. Some act on it while others do not. However, there are instances observed where the directors are more lenient with some of the staff with whom they are on good terms. This is also corroborated by other staff members who confirmed that there are certain individuals who are 'close' to the director do not have the habit of recording their work.

On the other hand, a HRB's employee can use the system to reflect the way he/she wants his/her work to be perceived. In other words, the users appropriate the system in ways to express themselves, which is not necessarily in harmony with what is actually happening. These ways of operating do also include inaction (or not using the QIDS at all) in order to convey a particular impression. The following statement from a chief of technical services indicates such cases:

[12] Oddly, they used word 'team', but actually, he is the only member of the quality team.

> *"He [The employee] is not entering not for the sake of not entering. He has a problem with being pressured. You did not solve this issue [of being pressured by work]… solve the problem and then force him to enter the service in the system... What is more important: I input or I achieve?" – Chief Technical Services, HRB*

Therefore, the very act of refraining from using the system can be a way in which the employees can express their dissatisfaction with the workload. It is about not only resisting technological advancement per se, but their inaction serves to convey their objections to work pressures. This is a way to protest their 'work pressures' to the executives without explicitly bypassing their immediate line manager.

This is often the case when employees feel they are 'bombarded' with ad hoc and urgent work assignments. Therefore, when the director (and even director general) enquires about employees not recording their services, the employee can express the workload grievances to justify their inability to document their work. This phenomenon is commonly exhibited for service requests that are not automatically generated by the system for example a helpdesk request via email to resolve a technical error, or a walk-in or call from the director to prepare a report urgently for a management meeting.

Besides, unlike the private sector, Bahrain's public sector context makes it difficult for line manager to fire or cut the wages of staff for not recording their services. The worst-case scenario, formally at least, is that the employee risk not being promoted or eligible for periodical incentives. The lack of severe reprimands might also be another condition for the lack of enthusiasm on using the QIDS systematically; unless there is a compelling reason to do so (e.g. as a means of conveying certain impressions).

In addition to individuals, the QIDS is also engaged with in ways that have consequential outcomes affecting the directorates as a whole. In other words, rather than using the system to evaluate the 'quality' of work of the HRB's employee, it is engaged in such a way as to portray a particular image of the directorate as a whole.

To make the above statement clearer, we need to touch upon the general intentionality of the QIDS. In HRB's top-management meetings, the President and the Director-Generals periodically review performance reports to assess the progress of the directorates they oversee. Among such reports are ones generated by the QIDS. Two data fields or elements are of interest here: (1) The number of services completed, and (2) number of NCRs. These

statistical data indicate the HRB directorates' effectiveness in completing their duties in a timely fashion. For example, a directorate with a relatively higher NCRs percentage is viewed to be problematic by the management team. This can prompt the top management to enquire further of the reasons behind the unacceptable NCRs numbers. As described previously, the system categorises the NCR according to their 'Type', which is a set of pre-defined phrases, such as: Lack of Time, Lack of Awareness, Lack of Resources etc. (Figure 6.2 provides a glimpse into how the NCR looks like.) To put this into perspective, I asked the director of the IT directorate about the problems she faces in her directorate:

> *"One of the reasons why some services can't be finished for example is lack of resources. This is the problem for us; and one of the solutions is to hire. But there is no recruitment going on [in the HRB]. So the same problem will re-occur due to lack of resources… The good thing about it is that it goes to the top management." - Director of IT Directorate at HRB*

From this quotation, we can construe that the system has the important role of 'confirming' the underlying problems why a directorate is facing unsatisfactory percentage of NCRs. In such cases, QIDS is invoked not to evaluate the directorate overall work but, instead, the system is appropriated in such a way as to affirm their problems (which is represented as NCRs). In this case, 'Lack of Resources' means lack of staff; hence NCRs are generated so as to establish the case of the need to hire more staff for the directorate to alleviate the problem. Similarly, 'Lack of Awareness' is understood to imply that the directorate's staff are not given enough time to train. Hence, the director can submit a request for an increase in the training budget allocated to the directorate. To put it mildly, the top managers consider the system's output reports to be 'objective proof' regarding the status of the directorate.

This particular manipulation of the QIDS apparatus has consequences affecting the directorate's outlook and subsequently its managerial decisions. This results in discrepancies in the ways different directors' respond to the large number of NCRs. The following statement describes such variations in the responses of directors:

> *"There are the opposing [managerial] principles of a director. The director warns his employee of having any NCR. Then you have another principle which says that for me to increase the number of employees, I need to see more delayed services." – IT Development Chief at HRB*

The above statement demonstrates the diverse ways in which the system can be manipulated with the intention of fostering a particular image of the directorate. Using the QIDS, the director can 'direct' their staff to produce an outcome that implies the directorate to be 'understaffed'. But the QIDS is also appropriated as to frame the directorate to be the 'hallmark of efficiency' in relation to other directorates, garnering praise to the director from his/her superiors.

To summarise this section, the internal working of the QIDS results in an array of its appropriation. The QIDS is used to portray a particular image of the individual or the directorate as a whole. How the system is used can have serious ramifications affecting both the individuals and the directorates. In any case, these manipulations of the system were not envisioned by its designers and hence challenge the validity of the technology's capability to accurately capture the quality of services.

The next section looks at the role QIDS has in the delivery of public services to ministries.

6.3. QIDS and Facilitation of e-Government Services

Unlike the previous section, this part is more concerned with the workings of QIDS outside the HRB, i.e., in the provision of e-government services to ministries in Bahrain.

6.3.1. 'Inefficiencies' due to Technology

More often than not, the public services are addressed more or less according to the steps outlined in section 6.1 of this chapter. However, there are cases where the QIDS is appropriated differently resulting in unintended outcomes. To understand this, let us revisit a particular intentionality of the system. More specifically, how to ensure the completion of assigned work in a timely fashion. To inculcate this, the system automatically assigns a deadline to each work task.

As the current quality assurance director explains: "*... each e-service workflow is linked to the QIDS. So every service has a time limit. As soon as the service reaches an employee, the*

timer starts ticking. So 2 weeks is 2 weeks, 10 days is 10 days." – Director of Quality Assurance at HRB

If the service is not completed, it is automatically recorded as an NCR record for the specialist handing it. As mentioned previously (section 6.1), the number of NCRs may have implications on the employee's annual performance appraisal and potential career progress.

However, the QIDS is worked out in ways unanticipated by its designers. To maintain a zero NCR record, there are instances where the HRB specialist intentionally leaves the work task open until the 'very last minute' despite being completed. The following testimony from the Quality Team's only member admits to the occurrence of such manipulations within the HRB:

> *"There are employees in other directorates where they register the service and finish it within 3 days. But the service is designated 10 working days [according to the system]. So he leaves it hanging in the system until the last day… This is perceived by the top management or director or supervisor that these employees are very busy. So they close all their services on the very last day." – Former Quality Team only member at HRB*

In other words, the QIDS produces an image of the employee as 'being busy' with several open service requests, when most of them are actually completed and pending their closing. But why do so? As mentioned previously, the system allocates service requests automatically based on a set of pre-defined criteria. The criteria include the number of service requests the specialists currently has in his/her inbox (Figure 6.3 shows a sample of this). The employees (or at least some of them) intentionally do not close their work request so as **not** to be assigned more service requests by the system.

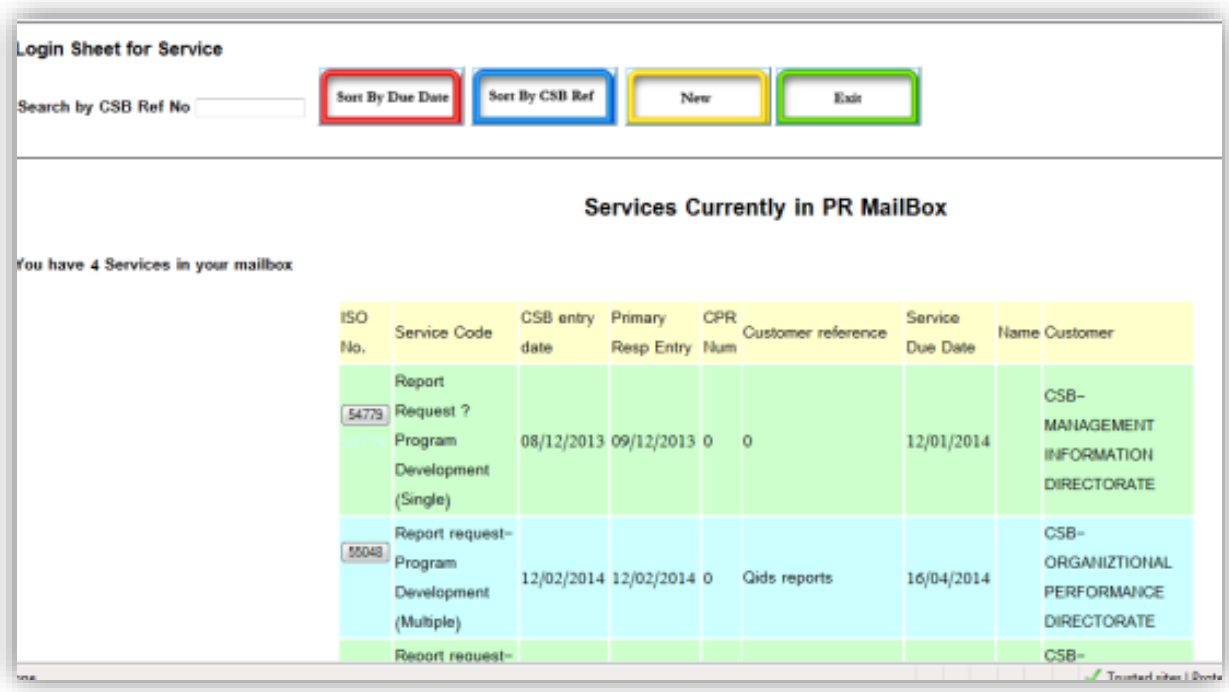


Figure 6.3 Screenshot of work tasks within a HRB employee's inbox who works mainly in preparing system reports

So paradoxically, instead of the standardised system being a device to ensure the proper delivery of e-government service 'in a timely fashion', the system is being 'tricked' by some to take up the maximum possible days allocated to complete each service.

Indeed, this misappropriation can be infuriating to the government employees who want their services completed as soon as possible. The acting head of HR directorate in the Ministry vented his frustration about such misuse of the QIDS:

> *"Problem with ISO [of the HRB] is that it is bad for the ministries but good for the HRB. Let's say a service will take 2 weeks. What happens at times is the employee handling it in the HRB closes the service request in 2 weeks by sending it back to us saying it has missing information… Because of this many of the services get unnecessarily delayed and are completed in a variable amount of time… If the service can be completed within 2 weeks, then this is what we expect: 2 weeks… <u>And it seems that they are going according to the ISO quality standard, but actually, there is no quality</u>." HR Acting Director at MoA*

Ironically, even despite exploiting the system's 'loophole' explained by the above statement, the system in place still considers the HRB specialists as demonstrating the 'utmost quality'

by finishing all the service requests within the 'allocated time'. Actually, the services may have taken more due to back and forth submitting and rejecting. In other words, the service 'on the whole' has taken more than the designated time. However, the system is oblivious to this as it only affirms whether a decision was taken (i.e. reject/approve) within the time allocated. This issue is further exacerbated with the arm-length distancing of relations between the ministry HR staff and the HRB specialists that are brought forth by the system. The next section expands this statement further.

6.3.2. Impersonalisation due to ICT e-government Transformation

One of the prominent consequences of standardisation through the technology is the 'impersonalisation' it brings. Interactions among government officials across departments take place through the system's user interface and formal procedures. IT standardisation makes public officials engage more with the system and follow through with its associated procedures. Instead of sending their requests to staff in the HRB with whom they are well acquainted (as is the norm before the system's implementation), the requests are sent via the system's workflow, which in turn designates it to an available specialist. They are in effect, at the mercy of the laid out ICT-based formal procedures as dictated by the standardisation of public services.

Indeed, this sense of impersonalisation has emerged on numerous occasions when I was conducting fieldwork in the ministries. Many put the blame for this directly on the standardised technology. Such criticism was relayed to the owners and administrators of the QIDS in the HRB, namely, the chief of development and the database administrator at the IT directorate in the HRB. The development chief admitted that the ISO accreditation had brought a sense of detachment in dealing with the ministries. The following is an excerpt from the interview where he reminisced about the 'days before QIDS':

> *R: I heard a ministry official saying that the QIDS benefits you more than them [in service delivery].*
>
> *P: "Some may put it this way. Because of the QIDS, some people say that the employee now does not want to do the actual work, but only to be on the safe side … The spirit of cooperating with the employees of days past does not exist*

> *anymore… He keeps the transaction with him until before the due date by a day or two; then he closes it. Why? Because he does not want to get more work and also he has zero NCRs… Before, you see the same person is busy, and ministries come to him with more work, he continues to work with them. He will tell them 'I am busy at present with something at hand, just give me a while and I will be able to handle your case as soon as I am done'. There used to be 'tawasel'." – IT Chief of Development at HRB*

The closest translation of 'tawasel' is 'connectiveness' or people helping each other out. The quote emphasises that the human connection to be central to conducting public administration in Bahrain. Nevertheless, not everyone shares this sentiment. On the contrary, there are those who view the technology in a positive light. Indeed, there are those who benefit from the 'even-handed' treatment of users brought forth by ICT standardisation. The following is a HRB database administrator's testament to this:

> *"It is not just this [simple]. Some people say that when the quality system came things became much better. The HRB was much better in dealing with the processes and circumstances of others … others say the opposite to this. So there are two sides to the story." – Database Administrator at HRB*

Other participants from the ministries also shared their positive impression of the system. Indeed, it is expected that there are HRB specialists who 'genuinely help' users and deliver their work in accordance with the expectations of the system's designers. On the other hand, others exploit the new standardised situation for workload reduction. They mainly care about maintaining a non-NCR reputation regardless of whether or not it is to the complete satisfaction of users. In other words, not everyone works in the same way.

In any case, there is no denying the contribution of technology to the indifference in the public service delivery in Bahrain. What supports this impersonal mode of operations further is that the QIDS data are for 'HRB eyes only'. As mentioned previously (section 6.1), the QIDS is primarily used internally to monitor the performance of the employees and directorates. Formally, the data regarding the assigned number of days for each HRB service is not shared with the user groups i.e., the ministries. So the users in the ministries have no idea of how long it will take for their service request to be resolved. The consequence of this

can cause anxiety to the ministries' employees, especially those whose cases need to be resolved urgently.

Furthermore, even if a ministry official has access to some 'inside' information that the service request is designated by the system to be completed within a certain number of working days, he might not act upon such information. To hold the HRB employee accountable according to what the 'system says' is not considered to be the best course of action. The following excerpt affirms this point about sociocultural sensitivities and the likelihood that such accusations can be received as 'personal':

> *"R: Do you know how long it takes to finish a service?*
>
> *P: You can know from their own ISO [referring the QIDS]. [Generally] we don't know much about it... Even if we know, I can't hold him [i.e. specialist handling my case] accountable. This is because if I did take him accountable, he might take it personally. So when exceptions occur, and we want him to do them for us, they will ignore us… If you tell someone your work is wrong, he will 'huff'. Even me if you tell me my work is wrong I will take it personally and huff *laughs*. – HR Allowance and Incentives Specialist at MoA*

It is thus not recommended to draw on the system's output as a way to 'reprimand the HRB employee'. Given the sociocultural considerations, the HR government officials often opt to maintain a good rapport with the HRB employees. This attitude is enhanced in Bahrain where, given its small demographic size, 'everyone knows everyone else'. Moreover, what this statement also accentuates is that you do not want to get on the 'bad side' of the HRB, as they can help you when a 'rainy day' arrives and you want certain requests to be addressed urgently. Besides, any transaction in Bahrain can have a ramification in the short or long term. This is what Axelrod (2009; 1984) termed the 'shadows of the future' which extend beyond the boundaries of the current transaction.

So what can government employees do to 'speed up' the handling of their cases, especially those that are relatively important or urgent? They can do so by resorting to the 'good old' socio-cultural practice of Wasta. The next section elaborates on this 'informal' solution.

6.3.3. Achieving 'Efficiency' through informal practices

As indicated in the above section, due to the lack of transparency of the QIDS operations within the HRB, the ministry officials are unaware of the allocated working days required for each task. Moreover, the HRB management is extremely reluctant to share such details with the government ministries. However, there are ways of glancing into the QIDS 'blackbox', and that is through the cultural practice of Wasta. The following exchange between the HRB's IT chief development officer and myself explains how this is possible:

> *"The ministries see the HRB as a black box; you see from the outside it's black and you don't know what is going on… your transaction is inside this box if you can find out what happens inside it… [So] people call you [a person within the HRB] 'can you please check how far my transaction has progressed'… Bahrain is small. So you will find someone who knows [someone]." – IT Chief of Development at HRB*

Note that the black box term invoked by the participant here is using the airplane's black box as an analogy to emphasise HRB's opacity and obscurity.

To illustrate his point, he puts me 'on the spotlight'. The participant uses my own personal background being Bahraini who works in a public institution (namely, University of Bahrain). He thus asked me what I would do in order to follow-up on a particular service which is processed by the HRB:

> *"P: You are a good example. Suppose you sent a request from University of Bahrain to the HRB for something. You waited a month and two and no response. So you what will you do then?*
>
> *R: Probably I will call you. *laugh**
>
> *P: See *grins*, that is the first thing you will do. You see what I mean." – Chief of IT Development at HRB*

From this short exchange, we observe that there is somehow a shared implicit knowledge or understanding that 'Wasta' can also to be resorted to in cases which have some degree of

urgency or importance. The participant would not pose this hypothetical question to me unless he is expecting the typical response from a fellow Bahraini. This also indicates that Wasta occurs quite frequently in the government workings in general and is the next course of action when the formal procedures fail. In this case study, the government ministries will resort to Wasta to hasten the handling of their own cases.

Instead of the standardised technology eliminating Wasta, it has provided a platform for Wasta to be worked out in unexpected ways. The following vignette illustrates this.

As mentioned about workings of the QIDS (section 6.1), the system allows the HRB employees to view the service requests allocated to their colleagues within the same directorate. The QIDS is a 'black box' for non-HRB employees. Previously, if a ministry employee wanted to hasten a service request, he would contact his Wasta directly who would in turn handle the situation.

Indeed, Wasta proved to be effective to circumvent the formalised workflow associated with the system. In order to maintain standardisation and impersonalisation, the QIDS allocate service request to HRB specialists according to a pre-set algorithm. In a bid overcome this random allocation, the government employee sending the request will contact his/her 'Wasta' (generally someone in a high position like a senior staff member or director) in the same directorate, who in turn, uses the QIDS to search the inboxes of HRB officials for that specific service request. As mentioned previously (section 6.1), the QIDS allows HRB employees to view the work-in-progress. On finding the request of interest, he/she approaches the specialist assigned with the concerned case and informs the specialist to 'take care' of the service request as it is 'from a friend'.

Consequently, with Wasta, instead of being just another service request to process in the formal first-come-first-served basis, the request has a more alleviated status of importance. This way the specialist is obligated to prioritise the service request. This is especially the case when the Wasta of the concerned government employee occupies a senior position. In short, what this entails is that the introduction of the system and the associated 'best practices' has not eradicated Wasta. On the contrary, the system is re-configured in order to allow Wasta to take place indirectly.

In other instances, the Wasta insider requests the assigned HRB specialist to send him/her the service request so that he will process it instead. This phenomenon occurs since the system

allows assigned specialists to re-assign any service requests in their inbox to others. The following statement from the senior development officer at the HRB admits to helping those he is acquainted with if contacted:

> *"R: Do you help someone who calls you to follow up on a transaction?*
>
> *P: Yes, why not. If he is from my family and I know him, I will take it upon myself to enquire about it… if someone I don't know [calls for help], I will tell him to refer to his own HR. The problem is you can't open the door to all government employees… so then what is the use of the HR in those ministries." – Senior development employee at HRB*

Although the participant works in the IT directorate, he is willing to enquire about the case of his close acquaintance in other directorates. This generally involves informally contacting his own Wasta within the directorate where his case is being processed. This form of Wasta is not made possible without the introduction of the standardised technology.

It is worth noting that Wasta is often exercised by contacting those who occupy higher job positions within the organisation. This is mainly due to the authority believed to be attached to their positions in the organisation. Such positions include relatively greater system privileges. In the cases where 'lowly' government officials do not have the means to follow up on overdue requests, they seek the help of their respective directors. The directors, in turn, follow up on those cases on behalf of the employee. The following statement alluded to this when I asked the acting MoA's HR manager how frequently he needs to contact the directors within the HRB to 'work out' the e-services of his own employees:

> *R: Did you ever attempt to call a director there to follow up on a procedure?*
>
> *P: Many times! Always! No other way… If we know the person who has the procedure, I call him. If not, I will call the director, he tells me he does know who has the request, just give me the CPR and I will check for you." – Acting HR manager at MoA*

The CPR[13] here is used as the unique identifier system's database. It is often used in the search engine to locate the request in question.

It is useful to emphasise that Wasta is by no means exclusive to my research findings. It is quite pervasive throughout the public sector and, to a lesser extent, in the private sector as well in Bahrain (Karolak, 2016). The following statement from a participant from the MoB attests to the pervasiveness of the Wasta in organisational work practices:

> *"If you know someone there, you can finish your work easily… This is not exclusive to my ministry; it is everywhere… The problem is people complain about it but they work the same way. They complain that 'Everything is Wasta, people are all about Wastat [plural of wasta]'. But when something comes to a request from maybe a relative of his, he will let it pass through. Isn't this considered to be wasta? It's Wasta."* - *Promotion and Incentives Specialist at MoB*

> *"It's [i.e. Wasta] everywhere. Even when you ask for a loan in a bank to be reviewed, you won't just wait the system to work out there. Won't you call the someone there you know to follow up on your request? You need to finish your stuff, right?" – Head of Personnel at MoA*

Note that 'the system' referred to by the participant above is not the information technology artefacts, but the whole formal institutions in place.

To sum up this section, technology might work or not according to the expectation of its designers. The whole notion of the technology of standardisation of services is to provide efficiency 'for all' seekers of such services. However, the practice of Wasta is still prominent, particularly in this case study. Technology only changes the course Wasta takes and become within the public service delivery. The next section presents the findings where Wasta is also

[13] The CPR (which stands for Central Population Registercan) is an ID number each resident of Bahrain has. It functions like a social security number. Generally, the CPR is the unique key identifier in information systems implemented in Bahrain. In our case study, each government official (or user) has his or her username as their CPR number.

made relevant to facilitate accountability where the standardised formal procedures fail to do so.

6.3.4. The Blame Game: Resolving Accountability through Informal Practices

The practice of Wasta not 'hastens' the processes of the HRB, but also offers a measure of accountability in government work. More specifically, it provides the means to ensure that the HR staff within the ministries is 'effective' in doing their work. It ensures accountability where the formal standard ways of public service provisions are lacking. This section narrates how this happens in practice.

My findings demonstrate that the ministry's HR personnel are accused of a habit of blaming the HRB for any shortcoming on their part. The HR staff are still relevant in the HR work, especially for internal HR processing, such as preparing paperwork for promotion, allowance, training and so forth. The following complaint from the HRB's head of helpdesk points out that it is common for the HR staff in ministries to 'throw the blame' at the HRB instead of owing to their mistakes:

> *"P: Unfortunately, the HR employees of the ministries are like a bottleneck; they will delay the process [Examples are requests for promotion, allowances] They then claim that 'everything is with the HRB'. So it's like we are like clothes pegs (Arabic word is shamma'a); the HR [in the ministries] just throws all their faults on the HRB. If you go and ask their HR about what happened to the transport allowance you requested they blame us. Later on, it turns out they [i.e., HR] never initiated the request in the first place.*
>
> *R: Does this happen often?*
>
> *P: Oh, it happens a lot. Like crazy actually! Many people who call us and tell us their situation. We look at it [using the system] and we see there is no record of it in the HRB… The image of the HRB becomes very bad [because of such behaviour]… Ask anyone from any ministry what he thinks of the HRB? See what he says..." – Head of Helpdesk at HRB*

What the above statement signifies is that the HRB serves as a 'scapegoat' or 'clothes peg' as the participant puts it. Clothes peg is the *"thing you hang your clothes on"* the same participant later clarified. The analogy of clothes peg (or the Arabic word Shamma'a) is a Bahraini parlance used to relate to the act of people 'throwing' the blame at others. As indicated in the above excerpt, the HRB are blamed for being slow in processing the request, when in fact it has not been initiated by the ministry's HR in the first place! Indeed, the mere mentioning of the newly acquired term of 'shamma'a' resonates with virtually all participants within the HRB. It is an act victimising the HRB for all the deficiencies in the HR of ministries.

Nevertheless, what makes the case interesting is that Wasta provides the mechanism to resolve this ongoing 'blame game' between the HRB and the ministry's HR. The following brief exchange I had with the former HRB Head of Reporting captures this phenomenon. It shows that the local practice of Wasta is frequently used via the system to circumvent the formal standard procedure:

> *"R: I heard that the HRB is like a shamma'a (Clothes peg).*
>
> *P: Every problem is HRB's [fault] *sarcastically*. Even if the ministry did not send the service request, they say the HRB are delaying it. This happens a lot. We check the system; nothing was sent. They check again in the HR of the ministry, they discover that the procedure is still there. [Indeed] we are always shamma'a.*
>
> *R: Won't the employee be caught lying?*
>
> *P: Tsk, he will be caught eventually. But, you know, they have to throw blame at someone else. Like who? Someone else who does not have an identity; like the HRB [which has] a general one. [This way] you will not blame a specific person... "Who in the HRB is delaying?" "We don't know, we sent it to them and they are delaying it". This happens many, many times *emphasis by participant*.*
>
> *R: Yes, they will do this to somehow escape blame [for the time being], but in the end it will fall on them.*
>
> *P: Not a big deal. It happens a lot. Even my friends who follow up with me, I tell them that your procedure is not with us, try to make sure again [from your side i.e., HR in ministry]. [Later on] they then say "Oh it turns out really the*

*procedure is still with our HR". The HR common response to this is "Weeeh, I thought we sent it" or they will say "Weeeh, we forgot about it" *child-like impersonation tone*, like this they say …But you as an employee [of the ministry] what can you tell your HR staff? You can't tell them anything. [i.e., you cannot complain about them]*

R: You say that you can follow up on transactions of your friends?

P: Yes, we have some tracking application, called QIDS. What I do is I use their CPR to see with whom the procedure is, and if we received it or not and it is assigned to whom... So I check, and because we are work colleagues we can do this... I ask what happened to her topic, did you finish it or not." – Former head of Reporting at HRB

The above interview excerpt is lengthy. However, it nicely sums up this empirical section and refers to the three themes I am trying to emphasise:

(1) It provides insight into the convoluted relationship between the HR service provider (i.e., HRB) and the HR service mediators/initiator (i.e., HR staff in government departments) within the situation-specific context of Bahrain's public sector.

(2) It brings forth the practice of HR staff in ministries to 'scapegoat' a general entity (which is the HRB in this case) for their 'mistakes'.

(3) The technology artefact, the enterprise system, is implicit in enacting the practice of Wasta even though it is designed to curtail it. Indeed, it is the old practice of Wasta that make it possible for non-HR officials to track their issues.

In order to hear the other side of the story, I relayed these accusations to the culprits in the 'blame game' i.e., HR staff in ministries who 'scapegoat' HRB for their deficiencies. They admit that the practice of blaming the HRB for the HR faults does happen. But, they stopped short of admitting that their own directorate is guilty of such behaviour. The following are a couple of responses of the HR ministries on this issue:

"Maybe other ministries do this. There are other ministries we know that have many problems. For us, thank God, we are not perfect 100%, but we are doing

well… This is not only my opinion, but even auditors say this." – Allowance and Promotion HR Personnel at MoB

"Look, when I blame the HRB [for the delay], I should have a good reason. Why? Because there is no person [in Bahrain] these days who does not have a friend, a colleague or a family member where he can reach any point in the HRB and tell him that they did not send your promotion. So why should I put myself in such an awkward position huh?" – Head of Personnel Affairs at MoA

What can be teased out from these responses (especially the latter one) is that Wasta takes place to 'track' the status of the government request. What the quotation also implies is that the shadow of Wasta operates in the background as an informal self-disciplinary mechanism. The mere notion of Wasta can influence public officials not to slack off in their work.

Nevertheless, even if an employee can locate his case through Wasta, the HRB would usually direct him back to resolve the issue internally with his own HR staff. This is mainly due to the decentralisation of the HRB and their practice of delegating the HR tasks to the ministries' HR directorates. The following statement from the HRB attests to the empowerment of the HR personnel:

"We have a lot of employees here. He [i.e., employee in the ministry] goes to the HRB directly. He knows person A and B and goes to them. The problem here is with you [i.e. the employee]. They will [eventually] tell him to go back to the ministry. There are things they [HRB] can't do for you… You are jumping over me. Maybe I don't want to promote you. Maybe I have an issue with you. Refer to your ministry." – Performance Appraisal Specialist at HRB

What this excerpt entails is that Wasta might allow the employee to track where his/her request is. But, it is not a 'panacea' which can magically resolve the problem. The employee has to go back through the formal channels to do so.

Despite the fact that the employee is eventually going to be directed back to the HR ministry, why would the HR personnel still blame the HRB? The reasoning behind these 'white lies' is to keep away the concerned employees and stop them from 'badgering' them and their respective superiors about their cases. For instance, the HR staff completed processing an employee's promotion request and already dispatched it to be seen by the minister, but do not

want to reveal its exact location to protect the minister from being troubled by enquiries. This is especially the case when, due to some circumstances, the request need more time to be reviewed and processed *internally* within the ministry. The following excerpt describes this:

> *"There must be reasons for telling the employees we sent your promotion request to HRB. Sometimes the HR staff did process it and sent it to higher up for approval. We sometimes collect requests, say, 20 promotion requests, all collected in an envelope and then sent to the minister. They [i.e. the employees following up on their promotion requests] expect it to be signed in a day and night? So you can't tell him it is with the minister. If you do, he will go and knocks on the door of the minister *laughing*" – Acting Director of the MoA*

To summarise this section, Wasta is a useful mode of operation that complements the formal ways of accountability in effective service delivery. Counter-intuitively, this is made possible thanks to the technology, QIDS. Nevertheless, though it can inform the concerned party of who is responsible for the current work, it does not 'magically' resolve all arising issues in public service delivery. It is through the formal channels that public services have to be delivered.

6.4. Summary

The purpose of this chapter is to unravel the internal practices involved in the provision of G2E e-government services in Bahrain. More specifically, it looked at the working of the quality monitoring system, or QIDS, which itself is one of the many outcomes of the modernisation of Bahrain's public sector through ICT means. The overarching and well-intended purpose of the system is to 'ensure delivery of quality services to customers and clients'. It does so by providing a mechanism or means to evaluate the 'productivity' of HRB employees for appraisal purposes.

However, as we scrutinise the practices that engage with QIDS internally within the HRB, we find out that they do not match the expectations of its designers. We also find out that there is a variety of ways the system can be used. It can be appropriated to portray an image to the individual as well as the directorate. The junior staff members are more likely to use the system when completing services in order to 'paint a rosy' picture of themselves. Some CBS

officials may accumulate a long work task list without closing service requests in order to give a semblance of being ‘busy’. Others, because of their rapport with their supervisors, ignore using QIDS altogether.

There are also discrepancies in the appropriating of the QIDS. Some directors take their employees’ performance seriously and ‘expect’ them to have no (or a minimum of) NCRs (non-conformist Reports). This is to show that their directorates are efficient and can handle the work assigned. On the other hand, other directors implicitly encourage their staff not to complete all assigned work and to cite ‘Lack of Time and Resources’ to be the reasons. This can portray to the executives that their directorates should be prioritised in hiring more staff.

What these findings entail is twofold: First, there is a wide range of ways the system of QIDS can be used, with the more interesting ones which are not anticipated by the designers of the system. Secondly, the QIDS can serves as a platform to convey an image of the individual or group. This fostered image may or may not reflect the actual work done. This disparity and manipulation in working with QIDS internally in HRB have profound implications on its data. It challenges the system’s objective of providing of accurate and complete information for decision-making purposes and performance appraisal.

In examining how the QIDS is implicated in the public services delivery with the ministries, we observe that the local primordial practice of Wasta plays a significant role in its provision. For instance, some HRB specialists abuse the system by closing assigned service requests at the last moment. This is to ‘trick’ the system to allocate incoming services to other HRB specialists. To overcome such ‘inefficiencies’ of the modernisation through ICT means, the users of the e-government services resort to Wasta to keep such misuse of the system in check.

In addition, to ensure ‘efficiency’ for the HRB officials, Wasta is also implicated to bring ‘accountability’ to ministry HR employees. This often occurs when the HR staff in the ministry stalls its processing. If a service request is long overdue, the employee can thus invoke Wasta as a means to ‘track’ its status. In doing so, Wasta invariably makes the work of the ministry’s HR staff transparent and can lead to holding them accountable for negligence. The QIDS technology is also implicated here as it provides the means to track the progress of any service request.

My findings on Wasta in relation to technology can be summarised in three points: First, Wasta seems to be vital in the standardised public service delivery in Bahrain when the formal ways fail or are unsatisfactory. Paradoxically, the use of technology appears to facilitate the folding of Wasta into the public administration. Secondly, the pervasiveness of the Wasta phenomena in the public domain makes it act informally as a panopticon. So in addition to the formal QIDS in place, Wasta can be a means to exercise control and accountability in the workplace. Thirdly, the prominence of Wasta in public service delivery does not necessarily ensure its potency to resolve arising issues. It may or may not hasten the process of dealing with service requests because eventually, the service requests have to take their proper course through the formal channels (including the standardised system).

So ironically, the 'frowned-upon' local sociocultural practice of Wasta which the system is meant to clamp down on plays a role in ensuring 'efficiency', 'effectiveness' and 'accountability' in the e-government services provisions of Bahrain's public sector. Wasta thus is not being gradually downplayed or going obsolete. Instead, what emerges is that it is still being practiced, albeit more indirectly, i.e., via the system.

The following empirical chapter examines the work practices involved in accomplishment of G2E e-government service delivery.

7 Working out G2E e-Government Self-Service

This chapter presents the local practices within the ministries involved in accomplishing e-government services via the centralised ERP. The focus of this findings chapter is to showcase the social and material heterogeneous arrangements embroiled in the working of G2E (Government-to-Employee) e-government services in Bahrain. The G2E e-services were intended to be conducted electronically only (Section 5.3.4). However, what emerged are unaccounted for 'others' in the working of the supposedly electronic e-services. The others are social (HR personnel), technical (HR legacy systems) and material (paperwork). The focus here is to bring forth empirical vignettes that highlight the roles of other technological artefacts, the paper, the signature and even face-to-face interactions in the mediation of the e-government services through universally enforced HR system across Bahrain's public sector.

The previous chapter delved into the behind-the-scenes practices within the HRB while this chapter is more focused to reveal the local practices within ministries. It is structured as follows: the first section describes how the e-government self-service of leave application is expected to work (7.1). The following sections deal with the on-the-ground practices in

accomplishing leave applications in ministries. More specifically, it explores the roles of local HR systems (7.2), the paperwork and signature specifically (7.3) and finally face-to-face human interactions (7.4) that operate in conjunction with the centralised ERP in the working of G2E e-government services in Bahrain.

7.1. Working of G2E E-Government Self-Service using the National ERP

The purpose of this section is to provide a descriptive account of how the G2E e-services are as expected by the HRB. Similar to previous chapter's structure, before revealing the practices involved in e-government service delivery, we need to grasp the articulated procedures expected to be followed by its users i.e., ministries of Bahrain. For the sake of brevity and clarity, the focus of this chapter is primarily on the working of the most prominent G2E e-services in Bahrain, more specifically, the Leave Application Self-Service. However, the findings presented in this chapter are also reflected other G2E e-services conducted in the ministries as well, and not only in the leave application process.

Briefly, the government employee logs into the self-service portal; selects the leave dates 'From and To' he/she intends to be absent for, and finally submits the request. The system automatically calculates the annual leave balance to be deducted. The system verifies if the user has sufficient leave days in their accumulated leave credit (See Figure 7.1). If the required data fields are completed and validated by the system, the leave request is electronically sent to the worklist inbox of the employee's respective supervisor. The supervisor has the option of approving or denying the leave request. (See Figure 7.2) A notification of the supervisor's decision is sent to the requesting government employee.

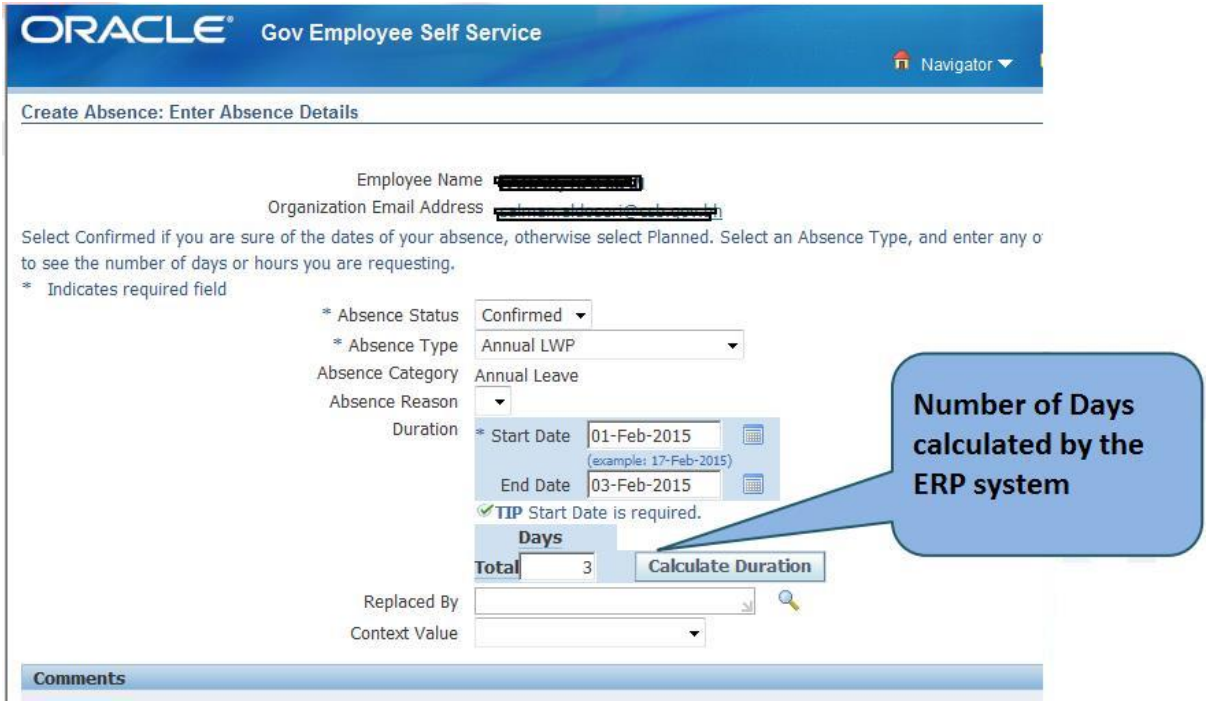


Figure 7.1 Government official's G2E self-service interface

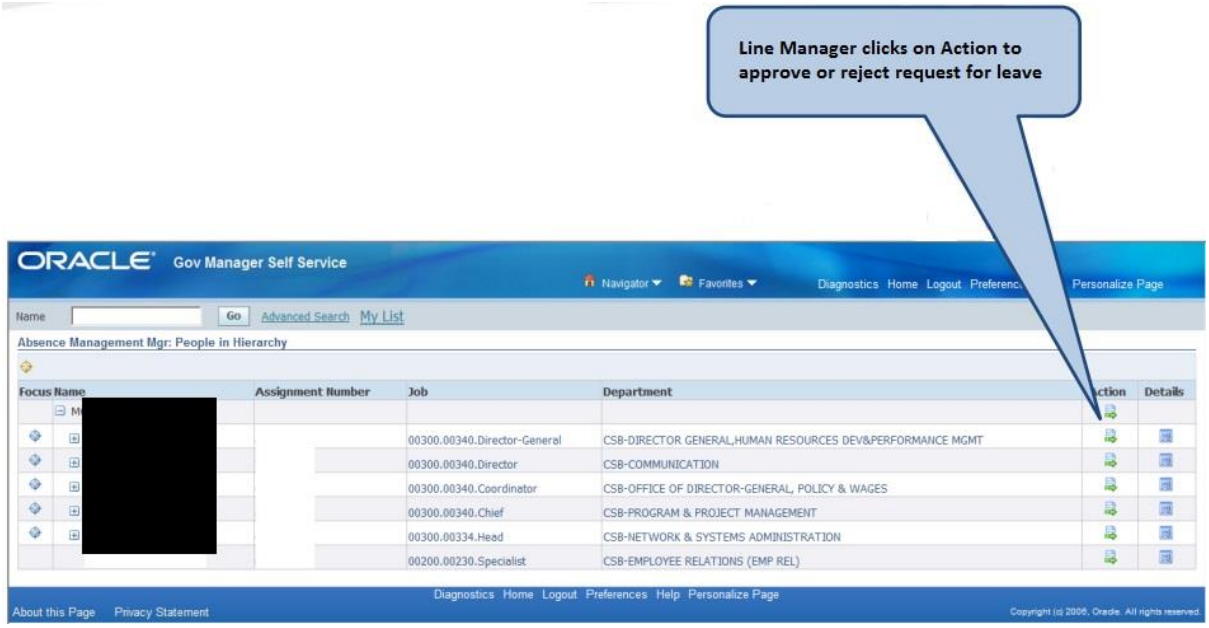


Figure 7.2 Line manager's worklist inbox

It is important to point out that in the described procedure the only users of the leave application process are the government employee and their respective line manager. This was

not the case prior to the transformation of the system from centralised database repository in its initial implementation. As covered in chapter 5, when the system was first deployed in 2005, the HR of every ministry would periodically dispatch their employees' leave paper requests in batches to the HRB for processing and data entry. At the time, the HRB employee in the now-defunct Operations Directorate reviews the validity of the leave requests paperwork and inputs it accordingly into the Horison's database. When the decision to decentralise was made in 2007, the HRB delegated certain tasks to the ministries. The HR directorates in those ministries were granted direct access to the Horison, and henceforth are responsible for inputting the leave requests themselves. When the transformation of Public Sector through ICT means was implemented in 2009, the leaves application process was redesigned to remove the intermediary [i.e., the HR directorates of the ministries]. The rationale behind this is to encourage a paperless transaction workflow in order to save in costs and reduce processing time. The idea behind the G2E e-government service is to have a clear and direct relation between Employee and System, with no intermediary in between. Figure 7.3 illustrates how such a typical G2E e-service should function:

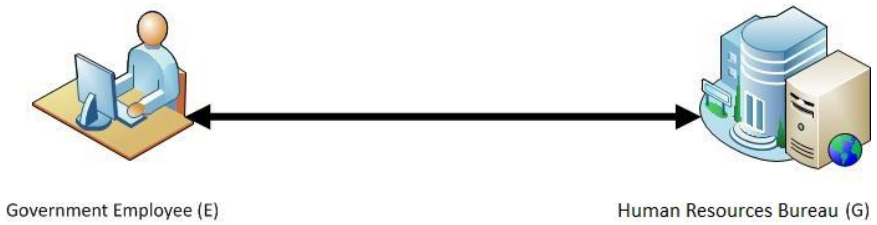


Figure 7.3 Intended use of the G2E e-government self-service

7.2. Working out G2E Services with other HR Systems

Though it seems to be straightforward and robust in its working, the leave application self-service is not universally practiced as outlined above within the ministries. What emerged from the fieldwork is that there is more to it than simply Employee and System working out the Leave Application. Instead, the fieldwork revealed that the intermediaries and other processes were included to be vital for the 'proper' accomplishment of the e-government services.

Hence, rather than executing the intended end-to-end G2E e-government services, what emerged is more of a G2G2E (Government-to-Government-to-Employee) e-services (See Figure 7.4). From my observation, the two ministries I was granted access to fieldwork perform the leave application differently.

In the MoA, a paper leave request form is completed and submitted to the HR personnel, who, in turn, will enter the leave request *on behalf* of the employee in the national Horison system (Figure 7.5 is a sample of such leave paper form). The following excerpt summarises step-by-step the procedure of the application in MoA:

> *"Before the employee fills out this form *shows me the Leave Application Form*, he should enter his CPR, name, dates, then print and signs it. And then the supervisor signs it as well. Then they send it to the HR. We as HR we make sure everything is correct. We open Oracle and enter it in Oracle. Then we enter it [paper form] in the scanner, for archiving. The paper form will go to the files [archival]… If something happened, we could refer to it." – HR Leave and Overtime Specialist at MoA*

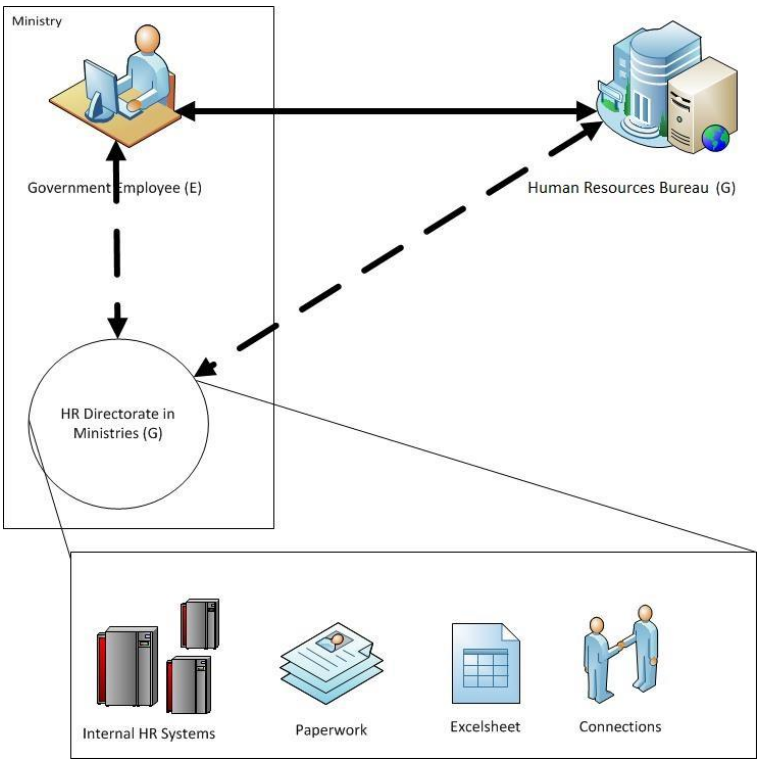
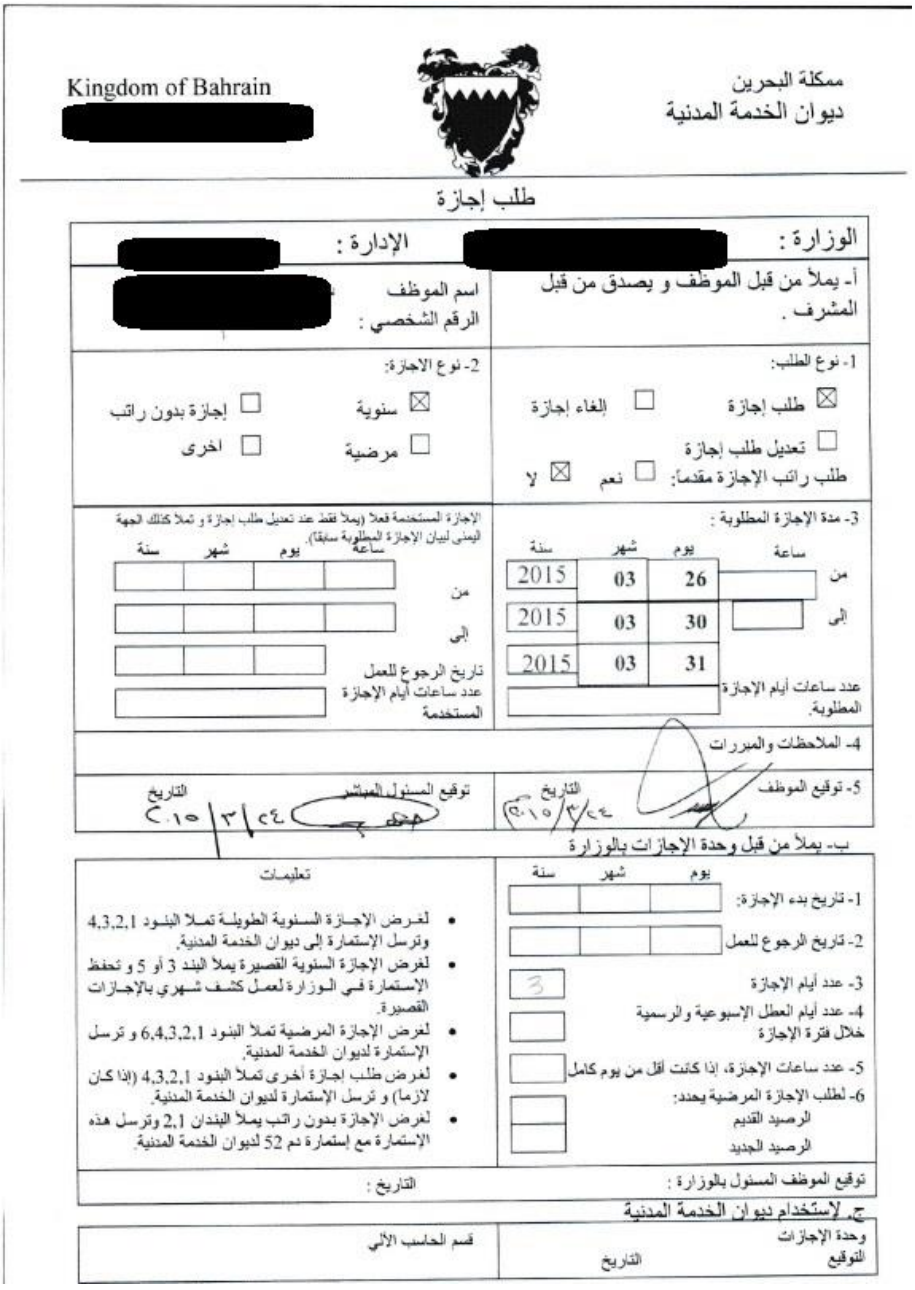


Figure 7.4 How the G2E e-government self-services is actually enacted through intermediaries (G2G2E)



Kingdom of Bahrain [redacted]

مملكة البحرين
ديوان الخدمة المدنية

طلب إجازة

الوزارة : [redacted] الإدارة : [redacted]

أ- يملأ من قبل الموظف و يصدق من قبل المشرف .

اسم الموظف [redacted]
الرقم الشخصي : [redacted]

1- نوع الطلب:
☒ طلب إجازة ☐ إلغاء إجازة
☐ تعديل طلب إجازة
طلب راتب الإجازة مقدماً: ☐ نعم ☒ لا

2- نوع الاجازة:
☒ سنوية ☐ إجازة بدون راتب
☐ مرضية ☐ اخرى

3- مدة الإجازة المطلوبة :

	ساعة	يوم	شهر	سنة
من		26	03	2015
الى		30	03	2015
		31	03	2015

عدد ساعات أيام الإجازة المطلوبة.

الإجازة المستخدمة فعلا (يملأ فقط عند تعديل طلب إجازة و تملأ كذلك الجهة اليمنى لبيان الإجازة المطلوبة سابقا).

	ساعة	يوم	شهر	سنة
من				
الى				
تاريخ الرجوع للعمل				

عدد ساعات أيام الإجازة المستخدمة

4- الملاحظات والمبررات

5- توقيع الموظف — التاريخ ٢٠١٥/٣/٢٤

توقيع المسئول المباشر — التاريخ ٢٠١٥/٣/٢٤

ب- يملأ من قبل وحدة الإجازات بالوزارة

	يوم	شهر	سنة
1- تاريخ بدء الإجازة:			
2- تاريخ الرجوع للعمل			

3- عدد أيام الإجازة: 3
4- عدد أيام العطل الإسبوعية والرسمية خلال فترة الإجازة:
5- عدد ساعات الإجازة، إذا كانت أقل من يوم كامل:
6- لطلب الإجازة المرضية يحدد:
الرصيد القديم
الرصيد الجديد

تعليمات

- لغرض الإجازة السنوية الطويلة تملأ البنود 4,3,2,1 وترسل الإستمارة إلى ديوان الخدمة المدنية.
- لغرض الإجازة السنوية القصيرة يملأ البند 3 أو 5 و تحفظ الإستمارة في الوزارة لعمل كشف شهري بالإجازات القصيرة.
- لغرض الإجازة المرضية تملأ البنود 6,4,3,2,1 و ترسل الإستمارة لديوان الخدمة المدنية.
- لغرض طلب إجازة أخرى تملأ البنود 4,3,2,1 (إذا كان لازما) و ترسل الإستمارة لديوان الخدمة المدنية.
- لغرض الإجازة بدون راتب يملأ البندان 2,1 وترسل هذه الإستمارة مع إستمارة دم 52 لديوان الخدمة المدنية.

توقيع الموظف المسئول بالوزارة : التاريخ :

ج- لإستخدام ديوان الخدمة المدنية

وحدة الإجازات
التوقيع التاريخ

قسم الحاسب الآلي

Figure 7.5 Sample of a leave application paper form

It is partially completed electronically before being signed and dispatched to the HR staff in the ministry to enter it in the local and centralised HR systems

In contrast, MoB does the leave application without the paperwork. However, they opted to use only their own, newly implemented HR system instead (Figure 7.6 is a snapshot of the

leave application through the ministry's own HR system). How is it reflected in the national ERP? The HR staff *re-enters the leaves* updates into the Horison to keep it consistent their own local HR system. The following quote attests to this process:

> *"The Horison has nothing to do with it [applying leaves]. He [employee] applies for leave through our system. He requests for the leave. It requires 2 level approval: The direct supervisor, and the chief… Sometimes it needs approval from only one individual, depending on the [employee's job] position… We [HR] then enter it in Horison" - Benefits and Wages HR Specialist at MoB.*

Min[redacted]
Human Resources Directorate

Leave Application Form

Part A: Employee Details

CPR No	[redacted]
Name	[redacted]
Position	HEAD, EMPLOYEE BENEFITS
Section	EMPLOYEE RELATIONS, EMPLOYEE BENEFITS & PAYROLL SECTION
Directorate	HUMAN RESOURCES DIRECTORATE

Leave Balances

Annual Leave	57
Sick Leave	233

Part B: Leave Details

Reference and Request Type

Reference No 70 — Request Type Leave Application

Leave Duration

Leave Type	Annual
From Date	09/09/2015
To Date	10/09/2015
Return Date	13/09/2015

Leave Payment

Advance Payment	No
Air Ticket Requested	No
Contract Period	

Summary

Total Leave days	2
Total Holiday(s)/ Weekend(s)	0(H) 0(W)
Effective Leave Days	2
Overall Status	HR Processed

Remarks & Justification

Attachments

Part C: Approvals

Direct Supervisor

Comments	
Name	
Position	
Action Date/Time	
Status	

Cheif and Above (CA)

Comments	
Name	A[redacted]AJ
Position	CHIEF, EMPLOYEE RELATIONS, EMPLOYEE BENEFITS&PAYROLL
Action Date/Time	16/09/2015 10:52:55 AM
Status	Approved

Part D: HRD Processing

Payment and Remarks

Paid No — Ticket No

For Contract Period

Remarks

HRD Processing

Name	H[redacted]LA
Position	HUMAN RESOURCES SPECIALIST
Action Date/Time	20/09/2015 01:42:12 PM
Status	Processed

Figure 7.6 Snapshot of the in-house HR system in the MoB

Leave Application in Bahrain's Government	**HRB (and Expected Routine)**	**MoA**	**MoB**
Sample Illustration(s)	Figures 7.1 and 7.2	Figures 7.5	Figure 7.6
What is practiced in the respective ministry	Public official applies for leave online through Horison. Supervisor approves request through Horison online.	Public official fills out paper form and submits it to supervisor. Both parties sign and send it to the HR. The HR, in turn, updates both their local and Horison systems accordingly.	Public official only the local system online and apply for leave. Supervisor approve through local system. HR staff updates Horison accordingly.
Electronically or Manually?	Electronically through one system	Both. Paperwork information is inputted to the central system and legacy system	Electronically through two systems
Involvement of HR intermediary?	No HR involved	Yes. HR personnel prepare and process paperwork. Input leaves in central system	Yes. HR personnel update central system based on internal HR system

Table 7.1 Comparison of expected and observed execution of the G2E leave application self-service

In summary, what can be teased out from the working of leave self-service is twofold. (1) The actual implementation of leave applications differs from the expected HRB process. The ministries execute the same leave application process differently than the expectations of the HRB (See Table 7.1). The observed practices in ministries modify the workflow sequencing in order to remediate the in-house HR system in the process. (2) The reconfiguration of the leave application process in both ministries has resulted in the intended user [i.e., government employee] not to have direct access to the centralised system. These discrepancies in the processing of leave applications within ministries challenge the realisation of a fully

electronic, paperless and disintermediated G2E self-service as envisioned by the HRB's management. These practices in the ministries apparently complicate a simplified electronic mode of service delivery. The following sub-section presents ministries' justifications of ministries for their practices.

7.2.1. Questions of Control, Functionalities and Ownership

This sub-section presents justifications made by ministries' HR directorates to extend the e-government services processing and, in effect, necessitate themselves to be part of the e-government. In short, the pretext provided has to do with concerns of malpractices due to lack of control and ownership, Horison's technical reporting issues, as well as cultural regarding the 'humanising' of the process. Irrespective of such reasons' validity; they appear to reinstate the HR directorates' local practices to be part of the e-government process.

For instance, a common response is that having government employees directly access the centralised system makes the public services more susceptible to malpractices. The following quote from HR personnel narrates the possible problems when asked why they do not rely solely on the centralised system:

> *"Mostly it is to avoid problems. You will have employees who will enter their leaves when they are absent. Such thing needs more monitoring… it needs to be from their section or their senior [i.e., supervisor]. Suppose that the employee does not bring any form or reason why they are absent, only for the senior to be surprised that he has annual leave. "You did not bring me annual leave or sick leave or anything". – Leave and Overtime Specialist at MoA*

Hence, on its own, the centralised HR system is perceived not to be adequate in preventing possible exploitation of the leave application procedures. Moreover, not all line managers treat their employees the same. While some line managers are empathetic to their employees, others are too busy, mostly unavailable, or very strict to approve pending leave requests of their employees. Having the HR personnel reinstated 'within the process' is essential to ensure the even-handed treatment of their employees.

However, re-mediating the HR directorate within the leave process entails that they have to duplicate the work for the same process. Interestingly, the ministry's HR personnel are

willing to do so. For them, what centrally lies about having a similar system is the question of ownership. The following lengthy exchange emphasis this point:

"P: … this [central and local HR system] will lead double work. I check here [our system] and then enter it in Horison. But, you know, this situation is comfortable for me.

R: The double work?

P: Yes, why though; because I want to be in control of the operation. I will show you the quantity of leaves we have; something unimaginable. But how can I control everyone? I have around 1500 employees here.

…

R: I didn't understand you when you told me the duplicate work is better for you.

P: Not better for me per se. But ok then, you tell me: 'Should I check and enter it in the Horison or let them enter it in Horison directly?' How can I know they entered it correctly?

R: It will show in the history logs that someone has entered it up to 2 months.

*P: No, no. *smiles* After 2 months I can't deduct [the salary] from him.*

R: So you don't trust them [i.e., your employees] you mean.

P: No. Trust is there. But from ten employees, one will appear and enter 5 days and then 3 days. I am not suspicious of people's activities, but there is this little part…" – Benefits and Allowance Specialist at MoB

Other reasons cited by the HR personnel for not relying solely on the centralised system are due to technical deficiencies, more specifically the reporting functionality. The following exchange is a typical response from the HR directorates:

"R: Why don't you [your ministry] be full dependent on the Horison system?

P: It does not have all these things.

R: What things?

P: The [reporting] details you have customised to what you want.

R: What I understood from them [i.e., the HRB] that they are willing to customise for the [Horison] system from you. You only have to ask them.

*P: Yes, but when will they do it for us? *grins*... That's the question." - HR Director at MoA*

What 'things' the participant meant by in this context is reporting features. He is implying that the HR personnel want full autonomy on the data fields and subsequently the presentations of reports. However, the HRB would not grant such privileges to ministries. The reasons HRB provided is that tailoring reports requires complete access to HR data of all employees within the ministry. According to the HRB, such full-blown access exposes the systems' datasets and hence raises security and privacy concerns.

However, to compensate for this, the HRB has already prepared hundreds of pre-defined reports which are readily available to the HR staff in ministries. But due to the vast arrays of reports, sifting through them can be an overwhelming task. Moreover, not all the reports are precisely configured according to the HR directorate's arising requirements. The HRB technical team are aware of such concerns and are willing to produce any reports the ministries request.

However, in order to request for creation of a specific new report, the ministry has to follow tedious manual protocol. The ministry has to officially send a formal letter (in Arabic) from the Ministry's Assistant Undersecretary (or above) designated to the director of IT in HRB. The letter must be signed, letter-headed and dispatched via courier[14]. In short, a long and arduous task.

[14] Yet once the reports are produced in the central system, it is available electronically for future uses.

Therefore, having their own local system at their disposal, the ministry can produce any number of reports and whatever presentation style they prefer. They do so despite having to consistently update two systems systematically. This is because the HRB does not recognise – and is vehemently against – HR systems other than their own Horison. Every month, the HRB processes the payroll of government officials based only the records in Horison. Any inconsistencies (which do occur) has to be resolved internally within the ministry. Dealing with the problem after the fact is more demanding than ensuring consistent data throughout their operation. Hence, ministry's HR actively maintains complete and consistent records throughout. Even if that means frantic data entry sessions near the end of every month to ensure all remuneration information of their employees are correct.

Indeed, for the ministries, the ownership of a separate HR system provides them assurances that they are in control. It provides them so to speak a sense of responsibility and trust that is associated with ownership of their own HR system. The following statement indicates that the ministry's HR personnel values and trusts their system in contrast to the centralised Oracle system:

> *"This one we have made it. It is not like the HRB did it for us… Suppose that the leave balance of an employee got messed up, or if the system goes down, or if the data is deleted. In any case, we would have record of the leave balance of the employee" - HR Director at MoB*

Another participant, referring to Elton John's 'Candles in the Wind', goes to the extent of associating the ministries' local systems to be the 'candles' or innovations that light up the 'darkness' of the public sector. But the HRB (and its central ERP) represents the 'wind' that sweeps away the ministry's 'candles' that light up the public sector.

> *"R: But you are doing duplicate work here.*
>
> *P: To a certain extent yes, we are doing duplicate work. It is due to limitations we encountered [with the central system]. If they tell you to walk beside the wall, you will walk beside the wall. If they told you to walk as you like, you will manoeuvre the way you think… But like what people say, one does not curse the darkness but lights up a candle. I wish this [in-house system] is a candle, even*

though, like they say, it is at the mercy of the wind. Elton John sang this song about Diana 'Candle in the Wind'.

The public sector is like Diana, you know, when it comes to new and creative ideas. They end up with the same destiny… Thank God, for us, our minister is enlightened. We are better than many ministries, because of the minister" – Training head at MoA

Nevertheless, from my observation experience, what is really at heart of justifying the local and relatively less sophisticated HR systems in ministries, is the space to exercise 'Rooh AlQanoon' or 'Spirit of the Law'. Systematically following the formal procedures through central ERP can be an inflexible and dispassionate affair. It does not take into account the context of each case. What 'Rooh AlQanoon' notion does is that it allows the public official to be fair-minded in their discretions. Two vignettes about this cultural notion can elaborate with regards to leaves application process and the technology:

One, as described in the previous chapter, the Law does not allow an employee to have more than 75 annual leaves to carry on to subsequent years. Horison automatically eliminates any leave credit days that exceed 75 at New Year of every year. According to the HR in MoA, he says this is not fair given the employee might be hard-pressed not to take leave due to work pressure. He asserts that "*instead of punishing him, we should be rewarding him for doing more than expected of an employee*". To circumvent this, the legacy system records the excess days the employee has.

Another vignette of 'Rooh AlQanoon' is about interchanging medical and annual leaves. The HRB grants annually an incentive monetary reward to select employees in ministries for due diligence. To be eligible for it, one of the conditions the HRB requires is that the employee should not take five consecutive days of medical leave. The HRB check this in their central ERP. Instead of losing it, the HR personnel in ministry had a workaround for an employee he viewed as excellent.

"I remember this employee who is well-mannered and hardworking. Then all of a sudden, he got a fever for 5 days and can't go out [to work]. Based on the incentive conditions, he is not eligible to get it. So, we 'flirted' with a solution.

What we did is enter 3 days medical leave and rest is annual leave." – Performance Appraisal Specialist at MoA

So in essence, Rooh Al Qanoon implies that through local systems and practices, the HR can re-intermediate themselves to solicit advice to their employees. The following quote from MoB encapsulates the essence of Rooh AlQanoon notion:

"I know for my own staff, my own ministry. I know that person X has cancer, but the medical committees have not granted her medical leaves requested. But since I know the persons, by their names, I can take this into consideration. So there is flexibility here. We give her the Rooh AlQanoon, so to speak." – Benefits Specialist at MoB

To clarify, for extended medical leave, the HRB requires a committee of medical doctors to approve the number of days for chronic illnesses. The committee's decision is reflected in the centralised ERP. So the jest of these vignettes is to add the human element to public administrative decision making, even if that means through local systems and practices.

The HRB is very much aware of the 'shadow systems' operating behind-the-scenes. However, they greatly detest them and do not recognise their legitimacy. They see that their centralised system as the official and legal binding system, sophisticated to fulfil the needs of the whole government. It is the one 'true HR system' which is sanctioned to enforce the very Civil Service law decreed by the King (Section 5.2.1 of Chapter 5). The HRB helpdesk refuses to be of any assistance to the HR in ministries if there they are facing problems with their local systems, especially when it comes to consistency of data. The HRB is even adamant not to provide the direct synchronised access between the central and local system. The following excerpt from MoB's head of Personnel Affair expresses her frustration with the attitude of the HRB and their lack of cooperation in granting real-time meta-access between the local systems and Horison database:

"The HRB problem is that they won't give us reading from their system. We need to read to feed our other systems. They are really not flexible with us. We are compelled to enter the changes manually. Any updates happen on it we need to go back and re-enter it in our system." - Head of Personnel Affairs at MoB

Indeed, real-time access to the Horison's database is useful in reducing the data entry workload in the ministries.

Posing this question to HRB's management of why not provide access, they provided the following reasons: (a) Allowing access to the central database increases the risk of potential security threats. (b) Allowing access entails full access to all employees' data in the ministry. So for privacy reasons, granting and revoking the authorisations to access certain datasets should be mandated by the HRB. Another reason (c) which can also be inferred from the findings is that the HRB wants to dissuade the ministries of relying on their own HR system. The HRB cannot guarantee that local HR system's implement the Civil Service Law and Executive Rules in the ministries. Hence, by not providing automatic access to the central database, the HRB hopes that the ministries would gradually abandon their local systems and eventually rely on Horison entirely.

Indeed, when it comes to the technical capabilities of the centralised system, it is comprehensive and even more advanced than the local systems. Even on probing the HR personnel who do not appreciate HRB do admit the centralised system sophistically and well rounded. Other than the occasional downtime and infrequent freezing complaints, the technology artefact is technically robust. Yet the HR personnel would rather not use the Horison system as intended, and update their own HR systems accordingly.

In summary, despite the technical sophistication of the centralised ERP, and the redundant work needed to maintain other local HR systems, the ministries' HR directorate are adamant in maintaining their systems. They cite organisational concerns (like ownership and accountability) and technical issues (like reporting function) to be reasons that justify their local HR systems. Irrespective of the validity of the reasons provided, what it entails is that the local systems, and the HR personnel who operate them, are re-intermediated into the supposedly electronically-based e-government self-service between government Employee and Supervisor only. The following section looks at how non-electronic paperwork also got folded into this self-service.

7.3. Working out G2E Self-services with Paperwork

This section reveals how Bahrain's historically-rooted public administrative practice of manual work and paperwork found its way to the ICT-mediated transformation of government work. Indeed, a manual paper trail is observed not only to exist behind-the-scenes in the paperless e-government services, but touches almost every aspect of government work. This phenomenon was observed in both the HRB and the ministry premises.

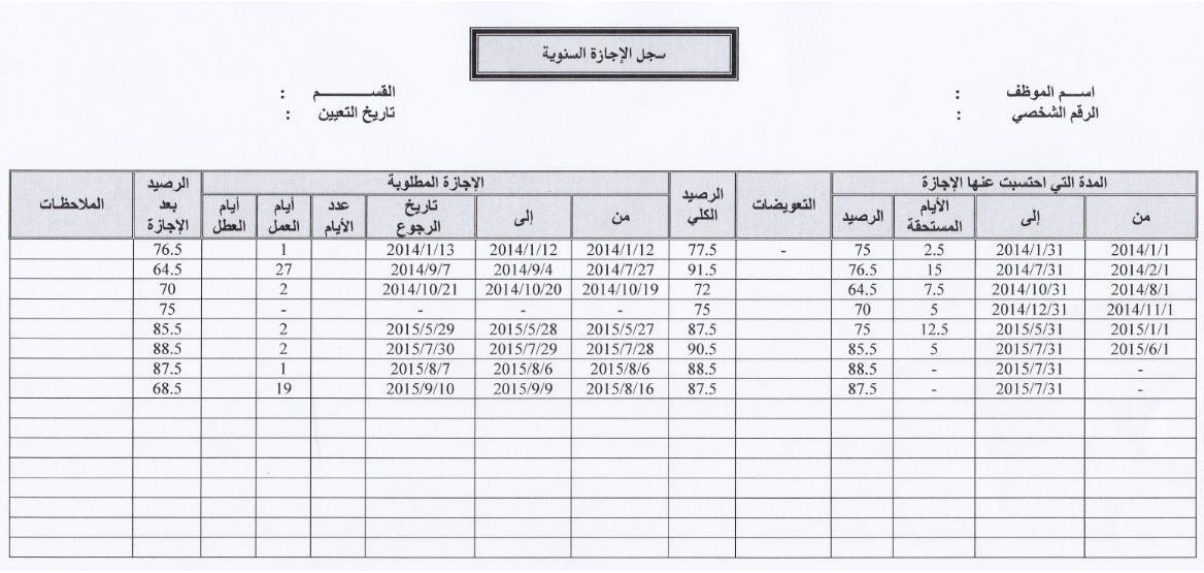
Indeed, what is intriguing about the findings is that manual work is regarded to be inherently more reliable and trustworthy than the centralised system. Surprisingly, some would even justify the manual electronic work and paper-based forms to be more accurate than the centralised system. This involves doing the same work manually on an Excel spreadsheet than rely on the automated system's processed results (Figure 7.7). The following excerpt is an exchange with an HR employee in MoA who is responsible for the leave application process following one of my observation sessions:

> *R: Don't you think you do a lot of duplicate work?*
>
> *P: No, why? But it is true. But why we do it? This is important… Suppose an employee is going to retire, he will ask for the calculation of his leave balance. I can give him from the system as a receipt, but if I calculate it here, it is more accurate.*
>
> *R: Why?*
>
> *P: Because it shows the leaves he went out. It shows the calculations; I have done it manually for him. It is better for him.*
>
> *R: But the [Horison] system can show his leave balance, right?*
>
> *P: It can, but sometimes the employee says he is not convinced of his leave balance. So you should show him manually exactly the leaves which he has taken. It has complete calculation.*
>
> *R: What do you mean by manually?*

P: Manual means doing it by hand.

R: You mean hand calculation is more accurate than the system.

P: Of course! The HRB sometimes might face a problem or blunders the leave balance of the employee; or does not save the employee's leave by mistake. Here, no, everything we enter it." – Leave and Time Attendance Specialist at MoA



سجل الإجازة السنوية

اسـم الموظف :
الرقم الشخصي :

القسـم :
تاريخ التعيين :

الملاحظات	الرصيد بعد الإجازة	الإجازة المطلوبة						الرصيد الكلي	التعويضات	المدة التي احتسبت عنها الإجازة			
		أيام العطل	أيام العمل	عدد الأيام	تاريخ الرجوع	إلى	من			الرصيد	الأيام المستحقة	إلى	من
	76.5		1		2014/1/13	2014/1/12	2014/1/12	77.5	-	75	2.5	2014/1/31	2014/1/1
	64.5		27		2014/9/7	2014/9/4	2014/7/27	91.5		76.5	15	2014/7/31	2014/2/1
	70		2		2014/10/21	2014/10/20	2014/10/19	72		64.5	7.5	2014/10/31	2014/8/1
	75		-		-	-	-	75		70	5	2014/12/31	2014/11/1
	85.5		2		2015/5/29	2015/5/28	2015/5/27	87.5		75	12.5	2015/5/31	2015/1/1
	88.5		2		2015/7/30	2015/7/29	2015/7/28	90.5		85.5	5	2015/7/31	2015/6/1
	87.5		1		2015/8/7	2015/8/6	2015/8/6	88.5		88.5	-	2015/7/31	-
	68.5		19		2015/9/10	2015/9/9	2015/8/16	87.5		87.5	-	2015/7/31	-

Figure 7.7 Sample of Excel spreadsheet of the leaves records

Similarly, paperwork is also regarded as more trustworthy than the centralised system. The following quotation from the Director at the E-government Authority confirms the ubiquity of the observed phenomena. He narrates that, much to his dismay, Bahrainis tend to trust the printed paper statement more than the system's output:

"Today if there is a transaction which does not show online [to occur] but it is printed on paper that they have paid, they [government employees] will take the paper which is printed… It is all about trust. For e-government to work correctly, you need trust. I trust the citizen that he did the transaction, means that he did it… In the university [when I used to work there] we get disputes where a student says that he added a course, and we tell him you did not add it. He will say 'no, I added it but you removed it'. You check the system and it shows he did not add it. You check in the audit logs you see he did not enter it. But at the end of

*the day, the course will be added to him. Why? Because with the system, there is always a possibility that it did something wrong. But the individual, no way they can lie. Impossible for them to lie. *sarcastic tone* - Director at Bahrain's EGA*

However, we should be careful not to extrapolate these findings to other ministries and generalise paperwork to be at heart of every government transaction in Bahrain. Doing so can unjustly imply that no government work can be electronically transformed. Indeed, I discovered, from corresponding with some acquaintances, that at least a couple of other ministries which do the leave application exactly as expected by the HRB i.e., via Horison system only. The following quotation with an HR employee confirms this:

"P: I will apply [for leaves] through the system. The supervisor will do it through the system. So no need for paperwork.

R: Others don't trust the system [like you do].

P: Why? Someone else will hit approve instead of me? If I send an email, you will guess that I did indeed send you an email... If the system tells you that I have done it, then I have done it and not someone else." – HR public official at Bahrain Ministry

Nevertheless, we cannot ignore the integral role paperwork has in government work. Indeed, the paperwork extends across many HR affairs such as recruitment, promotion, allowance, performance appraisal to name a few. More about the pervasiveness of paperwork in e-government to be presented in section 7.3.2. Meanwhile, the following section presents interesting finding of the extent the HR directorate in ministry takes to keep their employees unaware of the centralised system functionalities.

7.3.1. Online System? What online system?

There are HR staff in ministries (at least in MoA) who would go to great lengths so as to not publicise the electronic means of applying for leaves. Surprisingly, they also keep their own colleagues within the same HR directorate 'in the dark', let alone the general staff of the ministry. The following is a snippet of an interview with an HR employee in the MoA's recruitment section, who was unaware of the electronic self-service, despite being six years working in the HR:

"R: How do you apply for leaves?

*P: *Explains to me she does it via paperwork**

R: But do you know you can enter your annual leave on Horison directly.

P: No, I dont have access. I have access to Horison for recruitment functions. Each section is different. I am not authorised to enter my leaves because I don't have access to it, you see what I mean?

R: Well, you can apply for annual leave and then goes to your supervisor for approval. That's it.

P: You mean it can be done online?

R: Aha. Why don't you apply for your own leave online and not by paper?

P: ... This is the first time I know that I can apply for leaves online. We always do it paper… The ministry is so backward, all paper, paper, paper" – Recruitment Officer at MoA

Intrigued by this response, I bounced it to the employee's superiors for their perspective on this. What can be inferred from their response is by keeping their staff unaware of Horison capabilities reduces the risk of unmonitored problems arising. The following is an exchange with one of the MoA's HR Head of Personnel admits to such actions:

"R: But I understood from the HRB that self-service allows employees to see their leaves and apply for it.

P: Yes he [i.e., public official] can see his leaves from Horison system.

R: But also apply for leaves.

*P: Wala, probably the system does allow it more likely, but the people don't know. *smiles**

R: They don't know about it?

*P: Yes, we are quiet about that *we both laughs*... But really you don't want to allow them to only use it. We cannot monitor the process then." – Head of Personnel at MoA*

Nevertheless, the participant who was oblivious to the working of Horison is not representative of her staff. Virtually all HR officials I interacted with are aware of the HRB e-government services.

Nevertheless, what can be picked up from this finding is twofold: (1) Government officials can be unaware of existence or access to the G2E self-service directly via the e-government portal. (2) Even if they are aware, they cannot apply for leave directly from e-government portal. They have to complete the necessary internal HR procedures of the ministry. It is only through the local HR and their associated procedures can the leave be validated. By circumventing the HR directorate's local practices (the paper form and local HR systems), public officials are not granted their leave and hence risk direct deduction on their wages. So the safer course of action is following whatever the HR personnel considers as necessary for 'getting the work done'; whether it is via internal system or paper form.

7.3.2. The Sanctity of the Signature

The signature emerged strongly throughout my fieldwork to be crucial to the public administration activities of Bahrain. The importance of the signature stems from cultural-historical roots in the bureaucratic practices of government. It was the de facto means of formally approving any government decision. Indeed, what makes the paper relevant to accomplishing e-government services is actually the signature. The following statements from ministry and HRB participants emphasise signature's role when asked why is paperwork still ubiquitous in electronic workflows, especially in management positions:

"You know in Bahrain, we still have those, you know, who like to sign... They don't want to use a system. This old mind is still here... But the wave of change is coming... like I told you there are those people who are of the old mind and still in government. They love the manual." Chief IT developer at HRB

> *"There are people who say we have issues that we will not use a computer. There are people who love paper. They simply like it. There is an issue with the signature." – Head of Personal at MoB*

Indeed, the signature is pervasive in HR affairs of Bahrain's government. To provide an overview of its importance, the following is a list of HR procedures which cannot proceed without the explicit signature of the Ministers themselves: "*Promotion has to have the minister's signature. The [rewards and] incentives also. Also recruitment. Overseas training needs his signature.*" – HR Acting Director at MoA. For more operational HR tasks, the signature is still required from senior officials in the ministry's HR directorate. For instance, the request for allowance, training, report preparation, overtime, requests for system access privileges and leave request (in the case of MoA figure 7.5) need the signature of the HR Director or the Undersecretary. Even sending an official letter from a government department to another has to be signed when received on the envelope with the date of its reception! This intrigued me to enquire about the purpose the signature has in administrative work and hence in realising e-government services.

One of the signature's purposes is that it serves to be a reliable mechanism for warranting accountability. It confirms that the individual signing has indeed reviewed and agreed to the content of the paper. According to a participant, it is "*a way of clearing your consciousness of everybody. I did not do this without the approval of a supervisor. And my supervisor did not approve anything unless he has the right data" – Leave Application Specialist at MoA*

It provides a sort of tangible proof that indeed the person(s) signing have reviewed the document before signing it. Moreover, the accountability disperses to all those who signed. The following the 'more-the-merrier' expression shows the intricate relation of accountability and signature has on formalising documents:

> *"More people sign, more the people who are held accountable to the matter. There can be, say, three signature entries in a paper. This can be used it to blame anyone of them. I can throw it at them." – Managing Director at EGA*

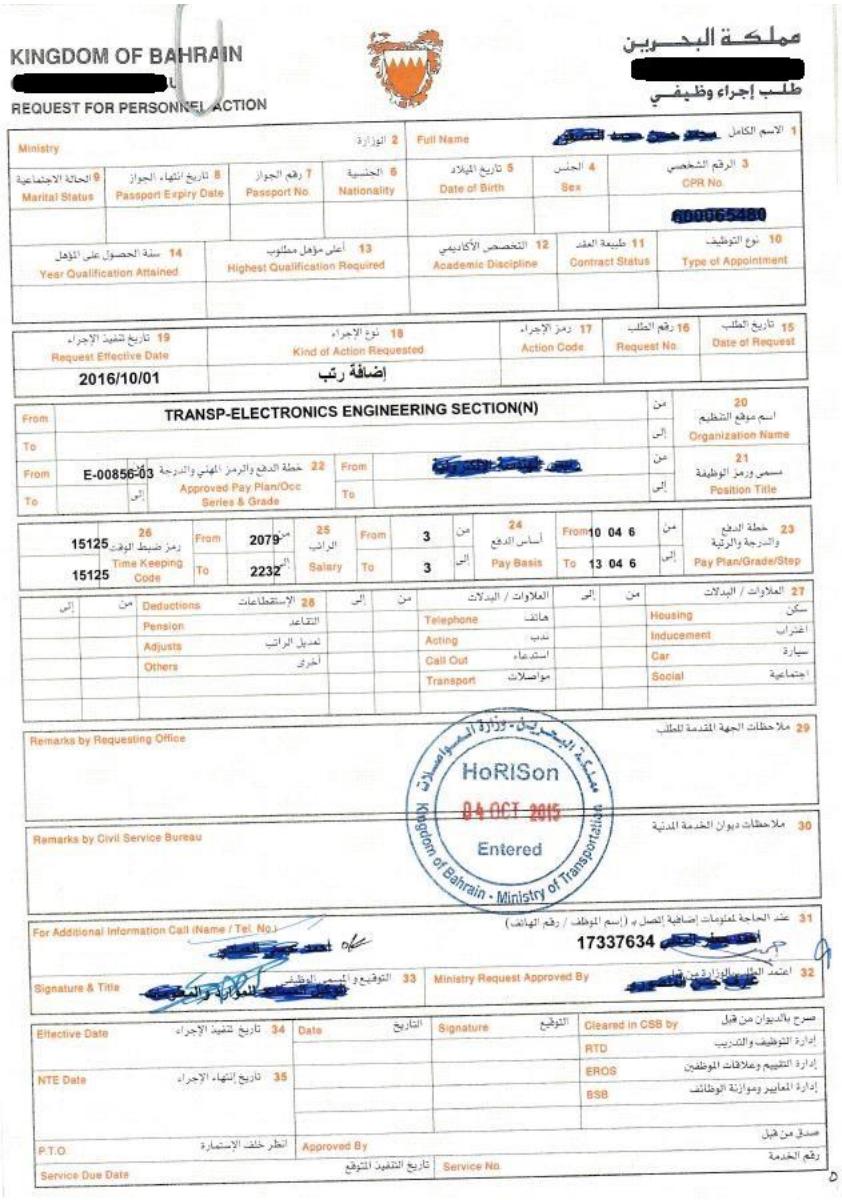
Interestingly, when we refer to the Civil Service Law, there is no place where the law explicitly states that any HR tasks must accompany a paper or a signature of approval. To extend this point, let us take the example of the promotion request procedure. According to

the civil service law (2010) article (14) that "An employee shall be promoted on the basis of merit by a decision of the Relevant Authority subject to the Bureau's Approval" (CSB, 2013, p. 19). The 'Relevant Authority' is defined in Article (2) of the same law as "The Minister or the President of the Government Entity" (ibid, p. 12). Nevertheless, as mentioned above, the signature of the Minister is the normative mode of approval in Bahrain's government. It is the formally recognised method that explicitly captures the decision of the respective Relevant Authority is via his/her signature.

This brings us to the widely used HRB paper form for Bahrain's government employees: denoted as Statement 52[15]. What makes this manual form especially important and relevant is that it has to be completed and subsequently signed by the 'Relevant Authority'[16] with regards to any changes to the employment status of a public official. For example, promotion, transfer, termination etc. Figure 7.8 is a sample of a promotion request completed, signed and stamped by the ministry.

[15] The number 52 is an arbitrary number. It happens that Statement 52 is the most widely used. In fact, no employee of Bahrain's government does not have at least one Statement 52 completed in their archived records in HRB.

[16] Or whomever the minister delegates the responsibility to. In the MoA this task is delegated to the assistant undersecretary while in the MoB it is delegated to the HR manager.



KINGDOM OF BAHRAIN

[redacted]

REQUEST FOR PERSONNEL ACTION

مملكة البحرين

[redacted]

طلب إجراء وظيفي

1 الاسم الكامل Full Name		2 الوزارة Ministry	
3 الرقم الشخصي CPR No.	4 الجنس Sex	5 تاريخ الميلاد Date of Birth	6 الجنسية Nationality
[redacted]			

7 رقم الجواز Passport No.	8 تاريخ انتهاء الجواز Passport Expiry Date	9 الحالة الاجتماعية Marital Status

10 نوع التوظيف Type of Appointment	11 طبيعة العقد Contract Status	12 التخصص الأكاديمي Academic Discipline	13 أعلى مؤهل مطلوب Highest Qualification Required	14 سنة الحصول على المؤهل Year Qualification Attained

15 تاريخ الطلب Date of Request	16 رقم الطلب Request No.	17 رمز الإجراء Action Code	18 نوع الإجراء Kind of Action Requested	19 تاريخ تنفيذ الإجراء Request Effective Date
			اضافة رتب	2016/10/01

20 اسم موقع التنظيم Organization Name		
From	TRANSP-ELECTRONICS ENGINEERING SECTION(N)	من
To		إلى

21 مسمى ورمز الوظيفة Position Title			22 خطة الدفع والرمز المهني والدرجة Approved Pay Plan/Occ Series & Grade	
عن	From	[redacted]	E-00856-03	From
إلى	To			To

23 خطة الدفع والدرجة والرتبة Pay Plan/Grade/Step		24 أساس الدفع Pay Basis		25 الراتب Salary		26 رمز ضبط الوقت Time Keeping Code	
من	From 10 04 6	من	From 3	من	From 2079	15125	From
إلى	To 13 04 6	إلى	To 3	إلى	To 2232	15125	To

27 العلاوات / البدلات		من	إلى	العلاوات / البدلات		28 الاستقطاعات		من	إلى
Housing	سكن			Telephone	هاتف	Deductions			
Inducement	اغتراب			Acting	ندب	Pension	التقاعد		
Car	سيارة			Call Out	استدعاء	Adjusts	تعديل الراتب		
Social	اجتماعية			Transport	مواصلات	Others	أخرى		

29 ملاحظات الجهة المقدمة للطلب

Remarks by Requesting Office

30 ملاحظات ديوان الخدمة المدنية

Remarks by Civil Service Bureau

مملكة البحرين - وزارة المواصلات
HoRISon
04 OCT 2015
Entered
Kingdom of Bahrain - Ministry of Transportation

31 عند الحاجة لمعلومات إضافية اتصل بـ (إسم الموظف / رقم الهاتف)

For Additional Information Call (Name / Tel. No.)

17337634

32 اعتمد الطلب في الوزارة من قبل

Ministry Request Approved By

33 التوقيع و المسمى الوظيفي

Signature & Title

34 تاريخ تنفيذ الإجراء Effective Date	Date التاريخ	Signature التوقيع	Cleared in CSB by صرح بالديوان من قبل
			RTD إدارة التوظيف والتدريب
35 تاريخ إنتهاء الإجراء NTE Date			EROS إدارة التقييم وعلاقات الموظفين
			BSB إدارة المعايير وموازنة الوظائف
انظر خلف الإستمارة P.T.O	Approved By		صدق من قبل
تاريخ التنفيذ المتوقع Service Due Date		Service No.	رقم الخدمة

Figure 7.8 Sample of Statement 52

Given that Statement Form 52 is an integral part of the HR process in Bahrain's public sector – or more specifically the signature it contains – managed to be integrated with the Horison system. The answer to this enquiry is that the signature is made relevant to the centralised through a supplementary bolt-on e-Archival system called Saperion. The Saperion sole purpose is an electronic archival database system where paper (with the required signatures) can be scanned, stored and sent electronically. Generally, any important document associated with the public official is archived and recorded to the individual in the Saperion (Figure 7.9).

The Saperion system is used in every promotion request that requires the approval (i.e., signature) of the designated authority.

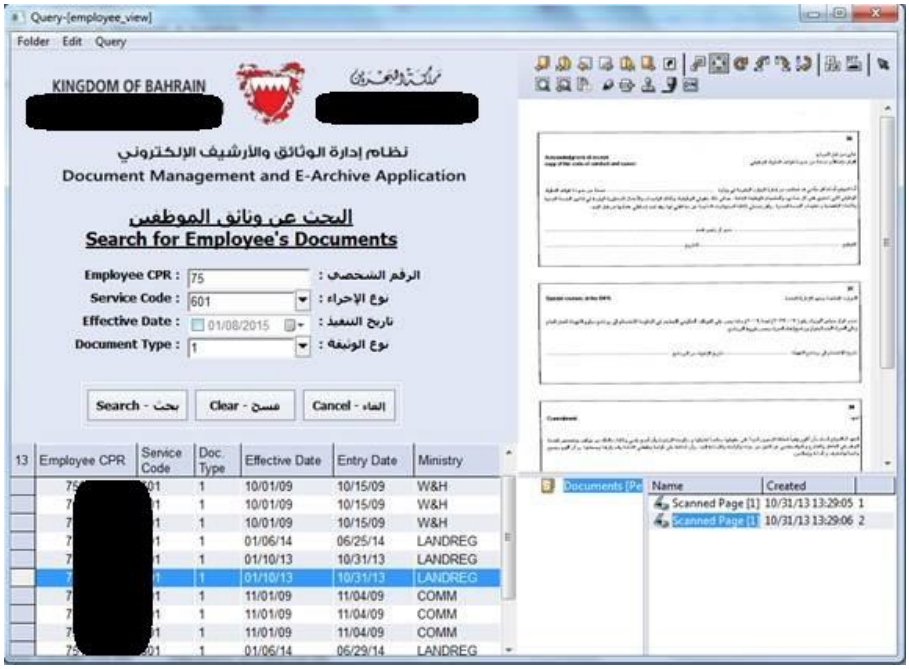


Figure 7.9 Screenshot of the electronic archival system Saperion

The augmentation of the Saperion bolt-on with the centralised ERP entails that the HRB formally sanctions the signature to be part of the workflow of e-government public service delivery. To demonstrate the role Saperion (or the signature) has in the provision of e-services, let us follow the example of promotion of a public official (See Figure 7.10). In brief, for the promotion in government to happen, it has to go through an electronic workflow dictated by the HRB. The HRB role here is to ensure that the employee to be promoted satisfies all the necessary conditions. For instance, a condition for promotion is that the employee cannot be promoted within two years since his/her last promotion. For the promotion to take place, the HR personnel has to input the details of the employee to be promoted in the Horison system. The HR personnel also complete a Statement 52 form. For promotion cases, it contains the details of the respective employee include the at least signatures: the HR director, undersecretary and minister in this example (figure 7.8). This scanned statement 52 is sent with the electronic details that were entered in Horison to a promotion specialist in the HRB. The promotion specialist's task is to review the promotion request details and ensure all the data is complete and the promotion conditions are met. The

promotion specialist approves or rejects the promotion request. On rejection, it will go to the HR personnel in the ministry who created the promotion request with the rejection status. If it is approved, it will go to promotion specialist supervisor in the HRB. With the promotion specialist supervisor approval, the data inputted in Horison will be saved and the HR personnel requesting the promotion request receives feedback about the confirmation. The promotion request workflow usually takes one to two weeks to be completed.

It is also important to note that scanning of the documents is not enough. The signed document should be delivered via mail courier to be archived physically as well in the HRB. Once approved all original documents have to be dispatched via courier mail. So according to the HRB, *"Even though it is scanned, we still need the hard copies with signature with it"- IT Director at HRB*

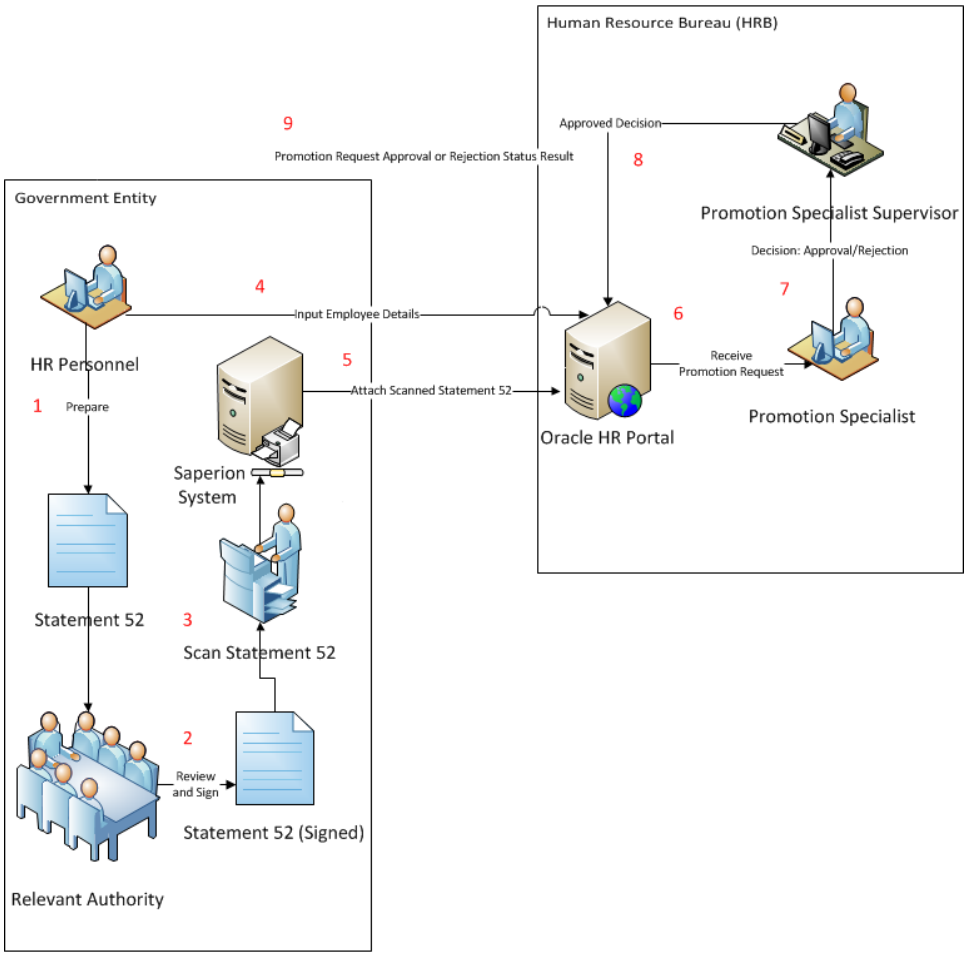


Figure 7.10 Workflow for promotion request

sent from a government entity to the HRB for approval

Despite the law and subsequent formal instructions to minimize if not completely eliminate paperwork, it cannot be fully realised with Bahrain's incessant reliance on the materiality of the signature. It is worth mentioning that the HRB recently dropped the requirement of the Statement 52 form. These regulatory instructions are formalised and circulated as Civil Service Instructions No. (2) issued on 2015 on "Electronic Services and it Delegation to Government Bodies". More importantly, the Civil Service Law does not require the approval via the signature, or even the oft-used Statement 52. What is required is *approval* of the 'Relevant Authority'. In Bahrain at least, this approval cannot be manifested other to manually sign on paper, as has been the case historically in government. The following comment confirms this empirical finding:

> *"P: … they [HRB's promotion specialists] don't need statement 52 [anymore] or the yellow paper or whatever form. But the approval of Relevant Authority is still necessary here.*
>
> *R: How can they get it then?*
>
> *P: By paper. *smiles*. Before how they did it they enter the process of promotion, then they scan Statement 52 and it has the signature of Relevant Authority. Now it is the same thing. They do a scan of the paper which has the signature of the Relevant Authority! Whether it is a form, or a white piece of paper. They have to get the signature of the Relevant Authority. [Even though] now the Statement 52 is not important." – Database Administrator at HRB*

In short, there is no escape from the paper in the supposedly electronic workflow.

Yet technically, the system can employ a mechanism to express the approval or rejection of the Relevant Authority. Alternatively, it can integrate some form of e-signature mechanism. However, there are doubts whether such electronic methods would work within Bahrain's public domain context. The following statement from the chief development manager attests to the capability of including approval electronically:

> *"You know, the workflow goes all here electronically *showing me using flowchart*. [But] It stops here. It does not go to Director-General or the President of the HRB electronically. The system is capable of sending it to them. But the question is: will they see it? Will they follow up with it? Here this is the issue..." –Development Chief at HRB*

Besides, the executives in government generally tend to have assistants or secretaries who go through their work tasks of the day. They sort and arrange the documents that require their signature (Figure 7.5 is an illustration of this). Moreover, moving this internal process online means that executive's entourage have to be granted electronic access of with executive privileges. According to the HRB, this can raise authorisation and authentication privileges concerns. Hence Bahrain's government tried-and-true practice of signing is infused with the electronic means of the system processing via Saperion bolt-on.

To end this section, it is apt to do so with an excerpt that captures the ubiquity of signature. The following informal exchange with a managing director in the only academic institute of Bahrain university when discussing how the signature is infused in our everyday work life:

> *"P: It is to make sure that I had a look at the documents as well. I keep my initials on every page of a report which is published and distributed by my department. There are times where papers which I did not look at went out of my department without me knowing about it.*
>
> *R: Is it required that you put your initials on every page?*
>
> *P: No, it is not. But I do it on my own accord. I know it is not a good practice... But I do what I can do to consolidate all important documents through my office." – Administration Director at Bahrain University*

What this quotation indicates that the (a) signature is not exclusive to this case study, but prevalent in many public administration in Bahrain. (b) Signature is engrained in the public administration culture that it is hard to do without in Bahrain. Indeed, the very act of signing is generally understood to be the de facto expression of approval of the signing party in Bahrain.

To summarise this section, the signature emerged to be a crucial part of government work in Bahrain. Paperwork is only made relevant to the accomplishment of e-government services primarily due to the signature itself. Despite, the Civil Service Law not requiring paper or signature for the approval process, they are still intrinsically part of the e-government work. Indeed, for any ICT-transformation to take place in Bahrain, it has to integrate it in some way. This is what happened by augmenting the centralised system with Saperion Archival system to digitally capture paper signatures. The next section examines the last mode of operation which necessary for the working of the centralised system in Bahrain.

7.4. Working out G2E services through Walk-ins

Along with standardisation using the centralised system, the process of raising issues with it is standardised across government as well. The rationale behind those standardised procedures in place is to ensure fair and equal treatment of the helpdesk requests on a first-come-first-serve basis. Indeed, the HRB officials insist that their system and its associated procedures are designed with the oft-cited Arabic phrasing ethos of "*Kelna Sawaseya*" which translated as "We are all equal".

To achieve this, a formal liaison correspondence procedure is established between the HRB and the ministries. Briefly, any helpdesk issue with the central system should be sent to liaison within the ministry. Ministry liaisons are individuals in the ministry's IT or HR directorate who are appointed by HRB. Usually, HRB appoints three to five liaisons in each ministry. If the liaisons cannot resolve the issue, they forward the issue to the HRB's helpdesk email.

The objective of having liaisons is to reduce the technical issues sent over to the HRB. The liaisons serve to be first-line support. The rationale behind this is to avoid overwhelming the HRB helpdesk inbox with numerous requests. This argument is reasonable considering that the userbase of the centralised HR system exceeds 50,000 users. For instance, a simple yet frequent issue is the request for resetting the login password for the e-government portal. To resolve this, the liaison can directly respond the public official with instructions i.e., by clicking 'Forgotten my Password' below the login screen. No need to forward it to the HRB. However, technical problems with the HRB system are usually forwarded to the HRB

helpdesk. So in essence, the appointed liaisons within the ministry act as a buffer or intermediary between the HRB helpdesk and the employees in his/her ministry (Figure 7.11 shows this relation).

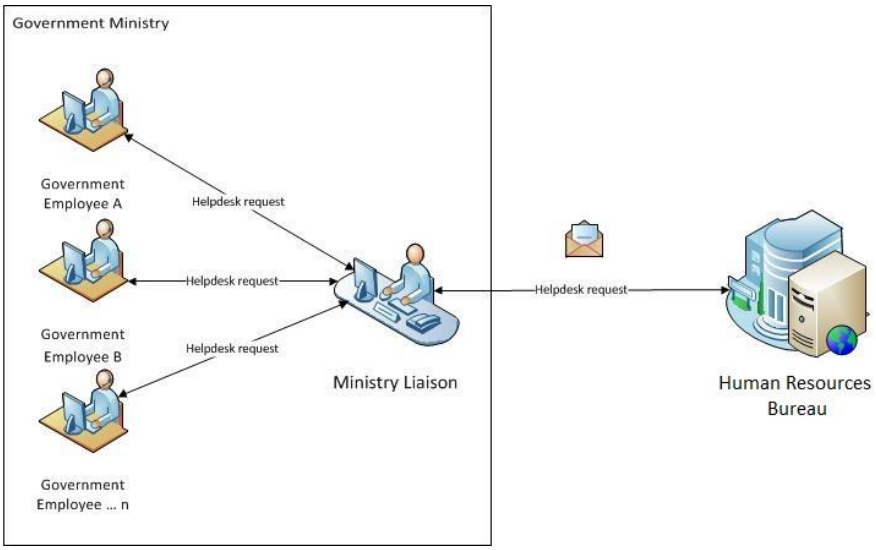


Figure 7.11 HRB appointed liaisons ministry act as first-line support between the HRB and the ministry employees

Attempts to contact the HRB directly would be responded with a template email directing them to contact their respective liaisons. Figure 7.12 is a screenshot of the typical email sent to those government employees if they contact HRB's helpdesk email directly.

From: IM Helpdesk [mailto:IM.Helpdesk@csb.gov.bh]
Sent: Wednesday, May 06, 2015 8:29 AM
To: W[redacted]m
Subject: FW: استفسار

السلام عليكم ورحمة الله وبركاته ،،،

نشكر لكم ثقتكم الغالية بإدارة المعلومات الإدارية من خلال تواصلكم المباشر مع إيميل الدعم الفني بديوان الخدمة المدنية، إلا أنه وبهدف تسهيل الإجراءات نفيدكم بضرورة إخبار المنسقين الذين تم ترشيحهم من قبل جهة عملكم في حالة وجود أي مشكلة معينة تواجهكم ليتم معاينتها والتنسيق مع الديوان لحلها إذا دعت الحاجة لذلك. وعليه يرجى إخبار المنسقين التالية أسمائهم للتواصل ولحل المشكلة:-

البريد الإلكتروني	المكتب	الأسم
a[redacted].gov.bh	17[redacted]	أ[redacted]ي
o[redacted].gov.bh	17[redacted]	ع[redacted]ق
fa[redacted].gov.bh	17[redacted]	ف[redacted]م

وسيتم حل المشكلة في أقرب وقت ممكن عند إستلامنا الموضوع من قبلهم

Figure 7.12 Standard email with liaison contact information.

This standardised email is sent to any government employee who contacts helpdesk circumventing the liaison in their own ministry. In this email, it formally instructs the concerned government employee to forward their issue to the designated liaisons appointed in their ministry. The table lists out the three appointed liaison in MoA and their respective contact details.

Such formally standardised helpdesk resolution practice has been effective. Prior to this, the government employees contact those they know to their personal mobile numbers. The following statement from the head of the HRB's helpdesk captures the difference this standardisation has brought forth:

> *"They used to call us about their issues. Now we are using the helpdesk. They call me, they call X, they call Y, they call Z … Now the work is more organised… But they still call. …. Before, my telephone was never quiet. But after the helpdesk, they [people calling] reduced." – Head of Helpdesk at HRB*

Similarly, another participant from MoB informed me of being severely reprimanded for not following the formal procedure of reporting a technical problem. Incidentally, he is one of the appointed liaisons in his ministry. The following is the narrative of his experience:

> *"For example, there is a thing which happened to me personally. I called an employee in the HRB to follow up on some issue. She shouted at me on the phone not call her personal phone. But the thing is: her personal number is there provided to us by email in case we need assistance." – Allowance Specialist at MoB*

What can be picked up from the above two quotations is that formal liaison ways are respected and followed accordingly, for the most part at least.

However, exceptions are bound to occur; as one of the HRB participants stressed the point that "not all your fingers are equal". Similarly, not all the helpdesk requests or any other HR procedure that involves centralised HR system is treated equally. There are certain requests which are prioritised even though they are routine ones.

More specifically, it is the socio-cultural practice of 'Wasta' is invoked to circumvent the standardisation of formal liaison process. (Previous chapter emphasises fundamental role

Wasta plays in working out the QIDS). Indeed, it is a way to 'hasten' certain requests over others. During my fieldwork visits, I observed such occurrence taking place frequently. The following observation field notes and subsequent questioning captures this phenomenon in detail when observing the work practices of the head of reporting services in the HRB:

> *"She [head of reporting] received 3 helpdesk requests about technical issues with the system's reports. She was showing me how to solve one of them. The acting director drops by and tells her that there is technical problem sent from a fellow director in a ministry. The lady dropped the case she was working on and immediately attended to 'this other urgent' request. Instead of delegating the problem to one of her staff, as she usually does, she told me that it is "faster to do it herself". As she was working on the case, she calls the director who requested it and notified him along the lines of 'we received your request and are currently working on it right now'. As she continued working on it, the acting director again drops by to follow up on the case. After she completed it, she calls both her acting director and the director who sent the request that problem is solved. The whole affair made her anxious and stressed" (Field notes taken 18th December 2014)*

The following follow-up Q and A excerpt was an exchange to understand what just happened:

> *R: So it is the same person that Acting Director was following up with? He looks he is in a hurry.*
>
> *P: Yes, he is always in a hurry *frustrated tone*.*
>
> *R: How do you receive such urgent requests?*
>
> *P: Depends. It always should come from our director for an urgent request. The user cannot send a request directly to me. If they send requests to me, I tell them to send it officially to the email of the directorate.*
>
> *R: Who checks directorate email?*

P: It is the director and her secretary… If it is an urgent request, they will call her and then she will call me. Sometimes, there are requests to bypass the email, and so she calls me directly to resolve them." –Head of Reporting at HRB

What this observation vignette demonstrates is that, as discussed in the previous empirical chapter, Wasta can challenge the formally laid out standardisation processes of e-government. In this case, it can circumvent the formally laid out liaison correspondence standardised procedure.

Moreover, circumvention of the formal procedures can happen by visiting the HRB. Indeed, the very act of 'walking-in' into the HRB premises 'can make things happen' formally laid-up front. If there are many requests sent to the HRB which has been overdue, or are urgently needed to be resolved, a delegate of the ministry physically visits the HRB premise to 'follow-up' in-person. The following quotation attests to this habit:

*"*P: You *know what, from how frequently I was badgered about the allowances not being approved [by the HRB]? I swear, I take my things and go to the HRB to follow up. I stay there an hour or 2 or even 3 hours. I just want them to finish for me 1, 2 and 3. This is because this person's issue is really delayed; that person has a real problem… Or someone is going to retire... so everyone has a case. So it's a headache. – Benefits and Allowance Specialist at MoB*

"R: So you still go [to the HRB]?

*P: Oh yes, I still go to them to follow up on matters. They are like the spring where everything pours into them. So if they don't solve it what can I do? What can I tell the employee who comes to me about his case? What do I say to him? That I sent it to them [i.e., HRB]? Ok, then what? So instead of hearing their [i.e., my employees] persistent nagging, I go to them [i.e., HRB] better *laughs* - Head of Personnel at MoA*

Indeed, in most of my fieldwork visits, I notice ministry officials barging in to follow on pending cases. At the time (and much to my annoyance), they would interrupt my interviews to have their cases resolved. On the plus side, these intrusions serve to be opportunities to observe the work done to address the cases. Never once did the interviewee shun them off on

my behalf. If they cannot help the visitor, they will immediately contact the respective party to follow-up on the concerns.

However, when it comes to some cases which cannot be resolved by the system or the specialist HRB employees, it is generally escalated up the hierarchical ladder. HR personnel in ministries would compile a list of issues which cannot be resolved by the formally dictated terms. For instance, the EGA wanted to employ a head of IT Security from the private sector. They proposed to offer the individual a salary 30% higher than the job salary. This is not possible under normal circumstances, given the system is coded to map the pay-scale as dictated by the Civil Service law (Section 5.6.2 established that the system embodies the laws and regulations). To resolve such extraordinary issues, the Undersecretary or even the Minister of the government entity would meet with the president of the HRB to work out ways to resolve it. The following statement from a director of the EGA states such occurrences:

> *"Our CEO collects the pending cases and sits with the president of the HRB. In this session, more than 50% of those cases get sorted out… Also in government entity X (intentionally anonymised), their president sits with HRB president and sort out the issues… These things which are unclear cannot be resolved unless it goes all the way to the top… As long as this culture is there, all the leaders will do the same thing [of resolving exceptional cases at the top level]" – Director at EGA*

Whether we want to attribute such practices to be the work of Wasta or not, what is clear is that there are residue channels of resolving problems that work in parallel to the formalised 'best practices' of modernisation in Bahrain. Certainly, the ICT-based modernisation effort did have an effect on organising the interactions between the HRB and ministries. However, there exists this informal workaround option to opt for in cases of urgency. Indeed, HR staff do not appear on HRB's doorstep unless there is an issue where the standard modes operation cannot resolve. If such cases remain unresolved, it is usually escalated to the managerial level. The HRB officials hence cannot afford to ignore these unannounced visits for risking that such operational issues might be escalated by ministries' employees to their higher-ups. In turn, the directors and undersecretaries of ministries would report the 'uncooperativeness' of HRB's staff members to the President of the HRB himself; a scenario which every staff in

the HRB wishes to avoid. Hence, this explains that, in all my observations, visitors from ministries are attentively attended to when they visit the HRB.

Hence, the takeaway from this last section of this chapter is threefold: (a) there exists an informal channel of circumnavigating the formal methods of correspondence between the ministries and HRB. (b) Cases which are resolved through the informal face-to-face interactions do not leave a paper trail or detailed in the system. However, the resolution is reflected in the system's data. Finally (c), the threat of resorting to acts of Wasta or face-to-face escalation within ministries have self-disciplinary implication on e-government services are being handled. So in addition to the formal methods in place for monitoring government work, there is the informal normative ways accountability operating in the background as well.

7.5. Summary

The purpose of this findings chapter is to provide a glimpse into behind-the-scenes workings out the G2E e-government services in Bahrain's government. This chapter revealed the technical, social and material entities involved in operating the one-size-fits-all HR ERP system provide e-government services. These range from disparate HR systems, signed paper forms and unannounced visits. Indeed, these assemblages of social, technical and material participants are crucial to the functioning of the national ERP in its quest to deliver G2E online e-services.

The first section reported the role of shadow HR systems in augmenting the centralised ERP. Despite the technical sophistication of the centralised ERP in achieving self-service, the ministries' HR directorate are adamant in maintaining their systems; even if that entails duplicate work needed for managing their local HR systems. The justifications provided are technical (limited flexibility in report presentation with the central ERP) and organisational (risk of possible malpractices among the staff in using centralised ERP). But more importantly, through ownership of their own HR systems, the ministries can exercise 'Rooh AlQanoon' or Spirit of the Law in the provision of services. This, in turn, legitimatises the HR personnel to be part of the streamlined G2E e-services. So for the centralised system to

provide e-government services ‘successfully’, it is imperative that these in-house systems be constitutive of the workflow in realising e-government services.

Secondly, the key role paperwork, or more specifically the signature has in realising the e-government services in Bahrain. The signature has been a historical mode of formalising transactions in public administration. Despite no explicit clause in the Civil Service Law to have signature part of public administration, the signature found its ways both in the HRB and the ministries’ work. Indeed, the signature became part of the ICT-modernity formally with the HRB’s ERP (by integrating the Saperion to capture the signature in the system) and informally within the ministry (by incorporating the signature as a necessary control mechanism to validate HR practices). In both cases, the practice of manually signing paperwork has re-inserted the signature (and those who sign) into the fold of e-government services.

The last point is about the crucial role that informal face-to-face interactions in resolving urgent and exceptional cases. The HRB and their associated system and standard procedures are in place to safeguard and execute the Civil Service law. However, in the cases which are overdue, urgent or unsatisfactory, there exists an informal backchannel to address them. This mostly involves predominantly social interactions which might lead to the escalation of operational issues to higher-ups in government. As a consequence, the shadow of escalation of cases has a self-disciplinary effect on the government to accomplish e-government services favourably.

Overall, this chapter is about the empirical finding behind public sector ERP implementation and use beyond the technology artefact itself. The next chapter draws on Goffmanesque sociomaterial theory to analyse the implication of these findings.

8 Analysis: Enacting national ERP Standardisation through Sociomaterial Dramaturgical Performances

8.1. Introduction

This chapter provides the analysis of the case findings this research presented in the previous two empirical chapters. The synthesis of such analysis is a theoretical framework that sheds light on how differently the nationally standardised ERP system is accomplished within the context of a Bahraini public sector setting.

The analysis stems from the assumption that the standardised ERP technology is accomplished through particular sociomaterial practices. More specifically, the standardised technology occupies various dramaturgical roles – audience, stage, performer or prop – as a consequence of the current sociomaterial practice. Each section of this chapter discusses the

performative implications of enacting the system to be a dramaturgical role, i.e., as an audience (8.2.1), stage (8.2.2), co-performer (8.2.3) and as a prop (8.2.4).

Moreover, the enactment of the standardised technology to these dramaturgical roles entails performative implications on its participants. Each sub-section discusses those performative implications on the participants, especially Bahrain's public officials. More specifically, the standardised system accomplishment results in 'staging' and 'being staged' performances by the participants, mainly the Bahrain's public officials. The analysis proceeds to discuss the performative implications of each dramaturgical role the system assumes (See Table 8.1). To extend this, the sociomaterial dramaturgical analysis framework supports the main argument that it is through both the 'staging' of modernity and conformity to standards, while also ensuring that the fulfilment of local obligations are 'being staged', are instrumental in understanding the working of the IT standardisation in Bahrain.

8.2. Goffmanesque Sociomaterial Enactment of Standardised Technology

The purpose of this analytical section is to provide a mechanism to explain how the standardised system is enacted according to the currently defined context. A sociomaterial dramaturgical analytical framework informs us how the standardised technology acquires different dramaturgical roles based on the current intra-action. Specifically, the standardised technology assumes different dramaturgical roles, i.e., technology is enacted as an audience, stage, performer, and prop as a consequence of the intra-actions.

To illustrate this, let us look at a simple hypothetical case. Suppose a user inputs some data into the system to be processed. The system here is *dramaturgically enacted* as an audience (section 8.2.1). It is an audience in the sense that it scrutinises the data inputted according to data integrity rulings. In another sociomaterial intra-action, a database administrator scrutinises the data that the users have recorded in the system. In this scenario, the system is *dramaturgically enacted* to be a stage (8.2.2). It is a stage in the sense that it provides the platform for other participants (i.e., users in this case) to perform based on the data they inputted. So in each sociomaterial intra-action, the system assumes a different dramaturgical role. This relationship between intra-actions and the subsequent performative dramaturgical implications on the system forms the basis of this chapter's analysis.

This dramaturgical reconceptualising of the standardised ERP system provides us with interesting insights into its working in situ. It informs of the shifts that happen in the enactment of the standardised system in contrastingly different scenarios. To put theoretically, this section conceptualises the dramaturgical role of the standardised system to be *performatively* produced and reproduced as a consequence of the current intra-action.

Before embarking on the analysis, it is apt to revisit some assumptions that underpin this case analysis. First, the performer and audience in an encounter should be assumed to be *sociomaterial* rather than exclusively social entities. This provides a richer conceptualising of the participants' encounters as it takes into account their sociomaterial nature. For instance, the user interacting with the system makes the system as audience (section 8.2.1). Contrastingly, the same user uses the system's output to support his performances to his colleagues. Here the system acts as a co-performer while the audience are his colleagues (section 8.2.3). The point here is that the standardised technology can be an audience in one performance but a performer in another performance. This sociomaterial dramaturgical assumption expands the role of performer and audience beyond social beings to be both social and material. Hence, the distinction of performer and audience is "only distinct in relation to their mutual entanglements; they don't exist as individual elements" (Barad, 2007, p. 33). So each encounter entails a particular way of performing where the audience can be the technology or the person. By necessity, these audiences do not exist independent of other entangled sociomaterial entities.

Secondly, a sociomaterial dramaturgical intra-action is not confined to the present social actors of an encounter but it also encompasses the other sociomaterial assemblages. To clarify this, the impression fostered by a performance does not reflect the individual person performing, but permeates to the sociomaterial relations he/she is associated with. In this case, it can be the person, the system(s), the directorate(s), the governing procedure(s) or the whole organisation. This is to say that performances have possible performative ramifications of the participants involved in their performance, as well as those associated with them outside of the performance itself. For example, users in a ministry use the standardised system as per anticipated by the HRB, which shows them to conform to standard procedures. However, the implications of such intra-actions extend beyond the users' individuals performances. It is reflected on the whole directorate and even the organisation that they

belong to. So, their performance shows their organisation and directorates as compliant users of the system.

The third and final point is that for any performance to be meaningful, it has to be understood within the contextually defined situation. Indeed, Goffman (1959, 1961) consistently stressed throughout his works that the situationally defined context makes the subsequent performance meaningful. For instance, provision of government services online through the ERP varies considerably than when performing the same service when the individual visits the HRB premises. The situation changed despite having the same participants involved, where the same client visiting necessitates a sense of urgency. What this assumption implies is that the current situational context can inform us of the roles assumed in an encounter as well as make sense of the subsequent performance that unfolds.

Following these sociomaterial Goffmanesque assumptions, the standardised ERP system is performatively enacted to assume different dramaturgical categories and hence make the technology more than just a ‘tool’ or ‘platform’ (Hafermalz et al., 2016). According to sociomaterial dramaturgical analysis, it is due to the emergent intra-actions that the standardised system accomplishes different dramaturgical roles. In other words, the standardised system can be the audience, setting, co-performer, or a prop based on the current performance. The following table (8.1) demonstrates the various roles the standardised ERP assumes and the performative consequences of such re-constitution:

Standardised System as	Performative Implications		
	ERP System	Staging	Being Staged
Audience	- ERP as objective judge and distributor of workload - System as self-disciplinary panopticon	- Circumspect users 'dramatise busyness' when engaging with the ERP	- In the HRB, 'segregation of audiences' enables personalisation of services to foster
Setting (or Platform)	- ERP provides discursive space for performers to dramatise performances - The data in the system reproduces the performers realities	- HRB personnel demonstrate adherence formal standards of procedures - Ministries HR personnel frequently use the centralised system for everyday HR affairs	- Social cohesion and acceptance among members of a directorate. - For QIDS, choreographing certain realities of the performers. E.g. Directorate to be understaffed - For leave, the HR personnel are staged to be essential for the proper e-government service delivery - Respond to any urgent non-standard walk-ins in the backstage - In the ministries, ensuring 'Rooh AlQanoon' to be at heart of their intentions in fulfilling local HR needs
Performer or Teammate	- System as primary producer of legitimate information - As teammate, the system legitimise the performances of other teammates i.e., public officials	- HRB stages following the 'Sawaseya' (All are equal) ethics in provisions of government services	The standardised system being staged as insensitive, inflexible and inadequate performer. Hence, need for local pre-modern practices. - Blaming the central system and HRB. (Shamma'a or Clothes peg) - Ministry staff invoke Wasta to delegitimise ISO non-compliance work practices within the HRB
Prop (or sign equipment)	- ERP System part of the ICT assemblage that contribute to modernity and progressiveness of Bahrain	- Adherence to international standards ISO in public services & ICTs pioneer (or Bahrain 'Sabbagah')	- Maintain stability by reinforcing the patriarchal obligations by appeasing to local audiences needs

Table 8.1 The analytical framework of the dramaturgical roles that the standardised system assumes and its subsequent performative implications

It is important to clarify the difference between ‘staging’ and ‘being staged’ in this Goffmanesque sociomaterial analytical framework (Table 8.1). The ‘staging’ here means the fostering of the impressions (or realities) that convey modernity, conformity and adherence to formal standards among the public officials. The performances here are more or less in accordance with the script expected of the ICT-based public sector transformation in Bahrain. In contrast, the ‘being staged’ are the impressions (or realities) that emphasise the fulfilment of local obligations. They generally constitute informal, non-standardised and primordial practices, which are deemed essential for public administration. The performances that are being staged are generally ones which are unanticipated and are actually at odds with the objectives of the ICT-public sector modernity venture. It is performances of ‘staging’ and ‘being staged’ that are instrumental for the centralised system to work across Bahrain’s public sector.

8.2.1. ERP System as the Audience: Accountability and the Projection of Compliance

This section analyses the sociomaterial practices where the ERP standardised system is dramaturgically reconfigured to be the audience. In other words, it looks at the generated practices when the standardised ERP system occupies the dramaturgical role of holding the performers accountable for their actions. The section argues that the limitations due to enacting the system as an audience results in the circumspect public officials’ ‘staging’ of compliance. But, in the meantime, enacting system as a dispassionate and scrutinising audience allow for the personalisation of services ‘being staged’ within ministries.

The standardised system becomes an inspectorial and scrupulous audience usually through the performance monitoring system of QIDS (Quality Information Data Systems), which itself is a product of modernity introduced to the HRB. Indeed, the QIDS demonstrates to be a manifestation of NPM elements which has been emerging in recent years in Bahrain’s public administration (Ali, 2010). The rationale behind having an internalised monitoring system is to provide surveillance and to ensure that the delivery of public services complies with the ISO international standards ‘best practices’ (Section 6.1). The aim is to quantify the work practices of HRB officials and to provide a standard template to guide the official’s activities (Star & Griesemer, 1989; Zuboff, 1988). Moreover, it is hoped that the goal-

oriented shift instils a sense of 'healthy' competitiveness among the HRB specialists in their work output, and thus enhances productivity overall (Clarke & Newman, 1997).

In effect, the QIDS system is enacted as a judgemental audience that establishes a form of panoptic control over the work practices. The implications include are that the HRB employees engage in self-disciplining behaviours. This indicates a Hobbesian perception, where if the employees are left to their own devices, they would "degenerate into mounting negligent state of nature". Hence there is an increasing need for what Latour described as, "stronger devices" (Latour, 1992, p. 246), to remind the employees of the work tasks to be accomplished. To enact the standardised system as the inspectorial audience of government work entails two aspects:

First, it accomplishes the standardised system to be the legitimate authoritative auditor that scrutinises the HRB public officials work practices. In turn, the technology is assumed to be an unbiased and reliable performance appraisal artefact that can objectively referee the ongoing performance. So by enacting the QIDS as another audience, the HRB officials have to deal with it in their performance. This is in addition to performing to the line managers as is the case in bureaucratic organisations (du Gay, 2000; M. Weber, 1947).

Secondly, the enactment of the technology as an audience regulates and limits the current performance to be more of a ritualistic one. This is to say that the system becomes susceptible to "ritual contamination of the performer" (Goffman, 1959, p. 74), where the performer engages in actions that reinforce an idealised 'reality' of the government work. This is because the system as an audience quantifies the work to measurable data units in order to ensure conformity to standards (Henman & Dean, 2010). However, this can quickly become problematic since modelling qualitative work outputs into measurable units is never completely faithful to the actual work it is designed to reflect. This can lead to the importance of quantitative-based outcomes rather than actual productivity results (Hoggett, 1996; Introna, Hayes, & Petrakaki, 2009).

In effect, having the system as an audience triggers the circumspect performers to engage increasingly in data manipulation in order to attend to the system's expectations. Thus, the system becomes a means to "transform, translate, distort, and modify the meaning or the elements they are supposed to carry" (Latour, 2005, p. 39). Indeed what emerged was that QIDS is enacted in such a way that it (re)produces a certain image or projection of the

sociomaterial actors. Generally, its enactment involves presenting an impression of compliance while concealing the noncompliance performances (da Cunha, 2013; da Cunha & Carugati, 2011). These observed findings are similar to other technology-based studies (Berente et al., 2016; Bertels et al., 2016; Introna & Hayes, 2011; Marabelli et al., 2016) where the performers (i.e., users) are too aware of the scrutinising nature of the technology as an audience that they engage in data manipulation.

These subsequent performances of dramatising the work in accordance with the defined criteria of the technology are what Goffman calls 'make-work' (1959, p. 112) actions. He refers to the additional time and effort dedicated to the presentation of the work than to the actual work itself. As expected, the fostered reality modelled in the system does not necessarily reflect the work, given that reductionist nature of technology databases to cut-off nuances in its formalising process (Henman & Dean, 2010; Star & Griesemer, 1989; Toll & Mazmanian, 2016). For the HRB specialists to foster a reality of being busy, they can do it by 'dramatising their busyness' – intentionally or not – that is, to leave the work tasks allocated to them to be 'In Progress'. The system performer perceives the reality that the specialist is 'busy' and hence allocates the next work task to another HRB specialist (Section 6.2.1). Ironically, the performative implications of such (mal)practices in fostering the busyness decorum is that work tasks following IT standardisation take longer than the prior ad hoc and unstructured ways of the past. This confirms that participants are involved in data manipulation to appease technology demands (Bertels et al., 2016; da Cunha & Carugati, 2011; Introna et al., 2009; Petrakaki, 2008) in what is designated as 'data fudging' (Markus, 1983, p. 435) to circumvent the technical, social and political limitations of the technology.

With regards to the ministries, the obligations of attending to different audiences – informal commitment to colleagues, boss, friends, and family as well as the formal standardised systems – can result in different and even conflicting performances. This is due to what Goffman denotes as "audience segregation" (Goffman, 1959, p. 57), which is a device used to protect fostered impressions. Indeed, this protection of performances through audience segregation runs throughout the case study. Briefly, audience segregation is where a performer ensures the current performance is not the same as the one for another audience. Three points worth mentioning about the audience segregation follow:

Firstly, the scrupulous audience demands a particular form of performance to unfold before them. For instance, enacting system as an audience means that the system's data integrity

expects a set range of characters to be inputted in its data fields. Secondly, even if the performer wants to break down the barrier of the audience segregation, the audience will not allow it. An example would be when the system prompts the user that the data entry violates the prescribed data integrity algorithm (Section 5.2.1). Goffman stresses that the reasoning behind audience segregation is to ensure the subsequence performance suits the current audience. Thirdly, and relatively more important, is that attending to different audiences enables a more personalised treatment in the public service delivery.

It is this last point of the personalisation of services that explains the variance in performances as they unfold to different audiences. This is empirically exhibited by both HRB officials as well as HR personnel in ministries. In the HRB, once a case is escalated to the line manager, the transaction request is transformed from a routine task to a prioritised objective through Wasta (Section 7.5). The system as an audience does not see the backstaged Wasta taking place to resolve the issue. With regards to ministries, HR personnel go to the trouble of maintaining separate systems to 'help' foster a more personalised engagement with their employees (Section 7.2). Again here, the centralised system cannot pry into the backstaged performances taking place in ministries. These differences in performances challenge the 'Sawaseya' or uniformity objective of the standardised technology to equally attend to all requests.

Furthermore, through the re-personalisation practices by 'audience segregation', the government officials can strengthen the cliental-preferential treatment of Wasta which the standardised system was introduced to eradicate. This confirms other IS studies that claim that individuals would not abandon their cultural values in the appropriation of a globalised system (Bada, 2002; Chau, Cole, Massey, Montoya-Weiss, & O'Keefe, 2002; Gamble & Gibson, 1999). This is what Goffman indicates to be the characteristics of "personalized service", despite its routinized natures, to uphold the performances as public officials are "shopping for services" (Goffman, 1959, p. 58).

Thus, the centralised system does not only allow parallel performances to be conducted in the ministries (da Cunha & Carugati, 2011; Wagner & Newell, 2004), but actually reinforces the backstage performances. It does so by having the HR personnel in ministries conduct an idealised expected performance when engaging with the centralised system ('staging'), and in the meantime demonstrate to their own employees that they are treated in a special way ('being staged'). That is what the spreadsheet (Figure 7.7) is for i.e., to manually manipulate

the annual and medical leave credits of the government employees but to demonstrate to the centralised system that everything is according to their rules and regulations. In short, the system as an audience allows for the 'staging' of compliance, and in the meantime ensures that local needs are 'being staged' to the other audiences i.e., public officials. This disparity of performances is made possible given limited boundaries of what the standardised system can observe. The centralised system has no way of looking into the backstage performance to scrutinise, other than what the currently unfolding performance presents to it by the HR personnel.

Hence paradoxically, the formal, impersonal and de-mediating standardised system indirectly supports the re-mediating legacy systems of government ministries for personalised service delivery. This analytical theme runs throughout the findings and is intermittently picked up and highlighted throughout this chapter. Moreover, it pours into the last discussion section of the next chapter (9.4). The following section touches on the performative implications of enacting the system to be a stage for performances of public administration.

8.2.2. Standardised ERP as Stage: Performance of Idealised Realities

The focus of this section is to discuss the implications of enacting the standardised system to be the stage or platform for performances to be dramatised. Enacting the system as a stage can have performative implications on those involved. In theoretical terms, the system provides the discursive spaces (Doolin & Lowe, 2002) for engaging particular sociomaterial practices to performatively re-constitute its participants.

As a consequence of particular sociomaterial practices, the standardised ERP system is enacted to be the 'frontstage' of HR government work. Based on who is the audience scrutinising the current encounter, different performances are generated on the front stage (i.e., ERP system). The implication of enacting the standardised system to be the frontstage of the current performance can performatively (re)produce both the collective performers as well as the individual performer. This enactment of the ERP is in contrast to the previous section which looked at the performative implications of having the same ERP to be the scrutinising audience. Here, the technology platform renders particular realities to "become visible, knowable and shareable in new ways" (Zuboff, 1988, p. 9) through events, processes, and objects. This section looks at how the technology of standardisation is used as a stage to

produce such realities based on the currently defined situation. This section demonstrates that enacting the system as a stage allows for the standard formal performances to occur, but also invariably leads to informal practices to be fostered backstage.

The QIDS captures how the standardised ERP is enacted as a stage platform to produce a particular reality of the directorate's status. It is through aggregating the performances of a directorate's employees which collectively enact on stage (i.e., QIDS) a certain reality of the directorate (Section 6.2). For instance, this can be done by having the directorate's performers to appropriate the system in such a manner as to (re)create the directorate to be 'understaffed'. Goffman calls this 'make-no-work' (1959, p. 113), where performers contrive to abandon appropriating QIDS altogether in their everyday work performance. These practices convey the reality that the directorate are 'in dire need' of hiring more staff to address the deficiency in 'service quality delivery to customers'. Another example is by engaging with the QIDS where the HRB employees are encouraged to choose the 'Lack of Awareness' option as a justification for sub-par expectation 'quality' of services. This is to indirectly reproduce the directorate to be in need of training to the intended audience: the top echelons of the HRB. These contrived performances for producing a particular image of the directorate are not made possible without the standardised ERP system being enacted as a platform apparatus.

It is important to note here that Bahrain's Civil Service law provides sufficient job security to government employees rendering it difficult to lay them off. Therefore, if it is not for job security, what motivates collusion to 'paint a certain picture' of the directorate? One reason for this – which is in line with Goffman's position – is that individuals are social beings who strive for social acceptance and group cohesion. By being in cahoots with colleagues and their line managers, one can gain trust and possibly ensure future favours (i.e., Wasta). This finding confirms IS studies in Arab regions where the individuals are more inclined to aid personal and immediate connections than the formal objectives of the organisation as the whole (Al-Sowayegh, 2012; Hill et al., 1998).

There are three analytical points to be pulled out from the dramaturgical conceptualising of the standardised formal system to be platform apparatus for the choreographed performances.

First, this performative positioning of the standardised system to be a stage for performances puts into question the neutrality of the technology (Fountain, 2001a; Winner, 1980). While I

agree with Cordella and Iannacci (2010) that the 'objective technology' is not neutral in its choice and subsequent implementation but is based on the inscription of the e-government policies of its designers (Akrich, 1992), this is not the complete picture. Limiting social inscription to the design phase implies that "social choices become frozen in a given technology" (Clark, 1988, p. 32). Doing so assumes standardised technology to be a stable and determinate entity (Strong & Volkoff, 2010; Volkoff & Strong, 2013). Rather, what this analytical point confirms is that the standardised system is an "unstable and indeterminate artefact whose precise significance is negotiated but never settled" (Grint, 2005, p. 298; Grint & Woolgar, 2013). What is central is not what is pre-defined and embedded within the system but how it is enacted in accordance with various situations defined by the targeted audiences. This can explain why the associated 'best practices' of the standardised system are enacted in most performances, i.e., they reinforce the e-government policies and intentionalities, yet they do not demonstrate such adherence in other situations.

Secondly, the performance contrived to be conducted in the frontstage demonstrates that the standardised system can performatively accentuate certain realities (Cecez-Kecmanovic, Kautz, et al., 2014; Mol, 1999), which are unanticipated and even in opposition to the designers of the standardised system. This study is not to measure the degree of authenticity of the fostered performance, but rather to demonstrate that such performances are significant in carving a particular impression or reality of what constitutes the individual or directorate to be. In other words, standardised technology is implicated in the agential cut as a result of intra-actions. This emerged not only within the HRB premise in performing on the QIDS platform but is also evident in the enactment of the e-government self-service apparatus (Chapter 7). For instance, as the audience, the HRB officials only observe that the ministries are – on the face of it – using the centralised system (i.e., frontstage) appropriately. However, the HRB officials are unaware of the backstaged local practices and the sociomaterial assemblages involved in processing the supposedly electronic-based e-government self-service. This contrived performance by ministry HR officials' produces an impression or reality that the ministry is an 'active and fully-compliant user' of the system (in spite of using other systems or paperwork which the HRB frowns-upon).

Thirdly, the performative implication of staging the standardised system to be the frontstage platform in public administration performatively pushes the informal sociomaterial practices to the backstage, rendering them invisible, yet more potent. As Goffman remarks, the "larger

the acting parts which fall within the domain of the role or relationship, the more likelihood, it would seem, for points of secrecy to exist" (Goffman, 1959, p. 71). This statement emphasises that backstaged performances inevitably occur along with frontstaged performances. Besides, it is this obsession to foster compliant work performances that results in subduing unfavourable but necessary practices to the backstage.

With regards to Horison, what results from the formalisation process of the standard system is bound to cut-off the messiness of the informal world (Henman & Dean, 2010; Kallinikos, 2004a; Toll & Mazmanian, 2016), as no system can account for all possible scenarios (Suchman, 1987). Hence this invariably conceals the informal assemblages to the backstage (Goffman, 1959). By doing so, boundary setting of what is appropriate for presenting on the centralised system (as frontstage) counterintuitively renders the invisible practices to be more powerful in the enactment of this formalised ERP system. For instance, the clamour of informal visits of 'customers' to the HRB premise (i.e. backstage) forces the HRB officials to be prudent in resolving the issue (Section 7.5). In every encounter where a member of the audience walks in, HRB officials are on alert to demonstrate a sense of attention. The reason behind this is that if the subsequent reactively improvised performance is inadequate for any reason, the situation can be escalated by summoning other (more powerful) actors to be constituted as part of the audience; a scenario which the HRB officials strive to avoid at all costs. The informal practices threaten to disrupt the negotiated formalisation processes of the interaction order (Barley, 2015). The technology of formalisation is set aside temporarily by such circumvention. This change in behaviour is a response to the changed definition of the situation as demanded by the audience.

The outcomes of such backstage performances to attend to unannounced walk-ins are somehow reflected to the frontstaged standardised system, albeit without the murkiness of the informal renegotiation process that occurred behind-the-scenes. Hence, such 'staging of dramatisation' confirm the potential of backstage secrecy while maintaining the frontstage standardised demeanour (Bada, 2002). More importantly, the immediate and urgent response to attend to the non-sanctioned and ad hoc public service requests makes it more effective than the standardised first-come-first-serve formal procedures. In effect, the non-formal backstage channel is integral to accomplishment of the standardised technology as it provides a platform to address the exceptional cases as they arise. In other words, the 'staging' of conformity and compliance in the system's frontstage invariably renders local ad hoc walk-

ins ‘being staged’ to be more potent in resolving issues that the frontstaged system cannot. So, according to Goffman, it is wrong to assume that concealing of certain practices to be cynical. Rather, there are moments where in order to continue to maintain the more important ideals (Standardisation throughout Bahrain’s public sector) HRB has to “by-pass momentarily” other unsanctioned practices (i.e., the infrequent Wasta practices and walk-ins) (Goffman, 1959, p. 54).

In addition to using the standardised system as frontstage to produce certain realities, the system is also enacted to be the backstage in other intra-actions. This is reflected in the leave application process within the ministries.

Indeed, both the MoA and MoB enacted the standardised technology to be backstage to their own local frontstaged performances in public service delivery. For the MoA, the materiality of a signed paper form is central to the supposedly paperless e-government public service delivery. The information imputed on the paper form is reflected first into ministry’s own HR legacy systems and then on the centralised system (section 7.2). This performance of using the centralised system for archival purposes enacts it to be a ‘*referential system*’. This is in contrast to enacting the centralised system as the only HR system in government. The MoA accomplishes this by contriving a manual-based performance to their staff. The justification for this contrived performance is that the HR personnel want to reassert themselves as the legitimate performers of the e-government self-service in Bahrain. Hence, the paperwork is accentuated to be the only vehicle for performing the leave application within the MoA. This particular arrangement of sociomaterial participants in performing the leave application within the ministry results in the standardised system to be veiled off to the backstage.

In a similar note, the MoB enacted the standardised system to be backstaged differently than both the MoA and the HRB. More specifically, the leave application process is enacted in such a way that the standardised system is ‘*non-existent*’. In the MoB, the users use only the ministry’s HR system. The data is consistently and frequently reflected back to the centralised HRB system manually by the HR personnel. Hence for MoB’s employees, the standardised system is enacted to be backstaged and does not facilitate the leave application process directly. What this entails is that the standardised system is sequestered from its intended users to performatively produce other performers as more reliable ones.

The point to be made here is that in both MoB and MoA cases, the contrived performance to backstage the Horison system produces a reality to government employees that the system is secondary or limited in its capabilities. In other words, the leave application e-government service is not realisable without some intermediaries to be frontstaged instead. The sociomaterial intermediaries include paperwork, legacy HR system or HR personnel to facilitate the self-service in the front stage. In sum, by enacting the centralised standard ERP as a backstage, the ministries justify the local, non-standard sociomaterial participants to be integral to the e-government services in Bahrain.

Before ending this section, it is important not to conclude that the formalised central ERP to be a charade or ruse. That is, the system is not a platform to enable disingenuous practices to foster. Indeed, what is often observed from the findings does not indicate that the system is merely an 'electronic façade' (da Cunha & Carugati, 2011, p. 12), where the system is engaged as a formality while every user goes on about their non-standardised work practices. Four arguments attest to this proposition:

First, it is imperative to note that the system is still central to all HR affairs concerning government employees of Bahrain. No changes to any employment status of the more than 50,000 government employees can occur without being reflected in the centralised system (Section 5.2 covers the significance of the HRB and their system). Yes, there are disparities in the sociomaterial practices of how the system is worked out in various intra-actions, but the system is still a significant participant in any government HR transaction. Besides, the system is used as a monitoring device as discussed in the previous section (section 8.2.1) and even a mechanism for the legitimation of practices (to be discussed in the next section 8.2.3).

Second, the formal modes of operation associated with the centralised system are frequently resorted to in order to discontinue the practices which pre-date the IT standardisation. This not uncommon practice is captured empirically in Figure 7.1.4 where HRB officials explicitly re-direct informal requests back to the formalised procedures of public service delivery. Indeed, HRB officials are eager to have the system to work as it serves to be a buffer "from the deterministic demands that surround them" (Goffman, 1959, p. 116). Hence, the system and its formal procedures are the default mode of operation in HR public service delivery.

Third, the HRB executives actively champion the working of the standardised system. Indeed, there is an insistence by the HRB in performing the 'dramatic dominance' (Goffman,

1959, p. 105) of the standardised system in all HR public service delivery. Having the centralised system to be dramaturgically involved in every HR government work in the country produces a reality that the HRB is at the forefront of the e-government push in the Kingdom. I pick up this point in more depth in a later section of this chapter (8.2.4) where the performances are catered to the national and international audiences projecting Bahrain's modernity and progressiveness.

Last, and more importantly, the non-standardised performances are generally not the norm in every work task fulfilment. They usually emerge or are resorted to in dire situations. The backstage non-standard modes of operation do occur and are effective, but usually happen when the frontstage standardised system is deemed deficient to address the currently defined situation (ibid). This is to say that relying only on the concealed, yet more potent, backstage informal practices would not work in every scenario. Frequent attempts to resort to informal ways are more likely to result in being shunned and redirected to the formal frontstage 'best practices' (See Section 7.5). The HR personnel is aware of the risks of being branded as the 'boy who cried wolf' if they often visit the HRB premises unannounced, especially in routine cases that can be resolved through the formalised procedures.

Hence, there is a shared implicit understanding that HR personnel visiting the HRB premises means the visitors are here for urgent and abnormal cases (Reckwitz, 2002; Wittgenstein, 1958). That is, cases which cannot be resolved by the formal modes of operations. What this entails is threefold: (a) standardised system and formal procedures associated are the order of the day. (b) It is the exception and not the rule that formal modes of operating the system are circumvented. (c) In effect, the standardised system invariably contributes to the persuasive informal practices of circumventing the formal. E.g. ministry personnel visiting the HRB collapse the formal sociomaterial barriers in place for e-government service delivery. But, in order to maintain dominance of the backstage intrusions, it is vital to console with the frontend formalised 'best practices' of the HRB beforehand.

8.2.3. Standardised System as Performer (or Teammate): A legitimise/delegitimise device and Co-Performing with Signature

In this section, the standardised ERP is being performatively enacted to be an active performer in a sociomaterial team. This is in contrast to the previous section where the centralised system is passive as it is enacted to be the dramaturgical stage to convey certain impressions. Being a constitutive part of a performance reconfigures the standardised system to be a teammate (Goffman, 1959) along with other sociomaterial co-performers. More specifically, this section is divided into two parts: the first is that the standardised system is enacted as a co-performer along with the ministry's HR personnel and legacy systems. The second part looks at the implications of enacting the standardised technology as co-performer with the signature in particular. In both parts, this section makes the analytical point that the standardised system is enacted to be co-performer with other sociomaterial performers in order to accomplish public service delivery in Bahrain.

First we need to understand what it means to be part of a performance team. Intuitively, the team can be a group of individuals thrown together for a project or event and are expected to cooperate as a team in order to perform a show. Goffman emphasises that the purpose of all the performers in a team is to confirm each other's performances (Goffman, 1959, p. 59). E.g. salesmen ensure that they are consistent when quoting the same price to their customers during separate negotiations. From a sociomaterial dramaturgical perspective, the enterprise system is performatively enacted in certain intra-actions to be a performer. As part of a sociomaterial performance team, the technology is enacted to bestow credibility to the standardised administrative work practices (Hafermalz et al., 2016). For example, the system's data integrity rules consistently reflect what is articulated by the HRB officials, and vice versa. This is particularly applicable with the material-discursive practice of reasserting the formalisation of the administrative work.

This conceptualising of the system to be a co-performer allows us to tease out interesting themes that centre on legitimising certain sociomaterial practices while delegitimising others. In essence, the standardised system enacted as a co-performer has three performative implications in the case study worthy to be touched upon:

First, the standardised system is performed to reinstitute the HRB as the primary producers of what are constituted to be HR 'best practices' (Hayes et al., 2014; Introna et al., 2009; Petrakaki, 2008). Here the system is a co-performer with HRB officials. This enables the HRB officials to delegitimise any other non-standard HR practices being performed not according to the standardised 'best practices' script.

The HRB officials are not oblivious to the myriad of sociomaterial assemblages [i.e., HR systems and paperwork] involved in HR work locally within ministries. In fact, this presents an opportunity for the HRB to reaffirm their legitimacy over the ministries. Indeed, HRB officials tend to frequently disparage or dismiss any claims made by the HR ministry staff when relying on their own local systems instead of the centralised system (Section 7.4). The hope is to have the audience [i.e., ministries] to cooperate and engage in a "respectful fashion, in awed regard for the sacred integrity imputed to the performer [i.e., HRB]" (Goffman, 1959, p. 75). Thus, the co-performance of HRB officials and the standardised system is to reassert the HRB to be the highest HR authority in the country given their outreaching portfolio.

In effect, they [the HRB officials and standardised system], as performers of standardisation, problematise any deviant HR practices that do not adhere to the scripted 'best practices' of the civil service (Foucault, 1980; Hayes et al., 2014; Introna et al., 2009). For instance, when a problem does arise – like the common issue of inconsistency of the data elements between the standardised system and legacy systems – the ministries have to amend their own systems. Any requests for revisions from the backstage (i.e., ministry's legacy systems in this case) are generally dismissed by the HRB as being disruptive to the actual formalised HR 'best practices'. Another example is, if the leave credit in the system exceeds 75 days, the system deducts any more days exceeding 75 every New Year (See section 7.2.1). Any objection to this by the HR personnel is discredited by the HRB officials. The rationale is that HRB officials and system perform based on to Civil Service law performance 'script'.

Here, the standardised system is a co-performer that reinforces the HRB claims of what is standard. Similarly, the standardised system acts as a co-performer with the HRB officials by enforcing their standards through its data integrity rulings. In effect, both the HRB officials as well as the system confirm each other's performance and hence performatively configure both as the source of what is formal and standard in government HR work.

Second, the enactment of the standardised system as the legitimate performer of Bahrain's HR 'best practices' can also be implored by the audience to discredit other performers' work performances. More specifically, the audience (i.e., ministries) point out the out of sync performances between the performers (i.e., HRB officials and centralised system) in order to reprimand some performers' actions (HRB officials). This is captured vividly by vignettes with regards to invoking Wasta to reach the backstage within the HRB (Sections 6.2.3 and 6.2.4). In the vignettes, Wasta is used to reach out and point to the inconsistency of the current HRB official's performance with the quality-standard of the performing system. Such information is for internal-use only (i.e. backstaged). However, ministries have contacts within the HRB. In effect, even though the QIDS is backstaged, it can still be indirectly observed by the circumspect audience through Wasta modes of operation. As a consequence, the HR personnel in ministries can 'call off' the HRB performance not to be in sync with the ISO quality script. In effect, the standardised system is enacted as a reliable teammate which can credit/discredit other teammates' performances (i.e., HRB officials) and in turn hold them accountable.

The third point is that the standardised system is enacted within the ministries to be an inflexible, insensitive and inadequate performer of government services. This is generally played out by the ministries' HR personnel and the audience are their non-HR staff. The consequence of such performances is to frame the standardised system to be a problematic performer of government services through displays that undermine and demonise it. The implication of such generated performances is to reaffirm the integral role of the non-standard legacy systems as necessary for the realisation of the 'proper' delivery of government services in the ministry. For instance, HR personnel refuse to strictly follow the articulated formal 'best practices' of the centralised system. The justification provided is that centralised system is technically or organisational deficient (Section 7.2).

To resolve those 'shortcomings' of the standardised technology, it is circumvented by re-intermediating the ministry's own sociomaterial assemblages to the performance. The focus here is not to confirm or refute such contrived local performances in ministries to be true to not. Rather it is to establish that such practices do occur as a means to necessitate other local sociomaterial performers (i.e., legacy system and paperwork) for the 'proper' public service delivery. In such particular performances, the standardised system is projected to be an 'evil' performer (Goffman, 1959). This is evident in the shamma'a (or clothes peg) expression

where the HRB and the centralised system are blamed for any misgivings that happen; even on the part of the HR personnel in ministries (section 6.3.4). This 'deficient' performer problem can only be overcome by the locally available sociomaterial systems and paperwork to 'save the day'.

What can be picked up from this particular sociomaterial dramaturgical analysis is that properties or attributes of the standardised ERP system are not pre-defined, but are performatively enacted. This is to argue against the assumption that the ERP system is 'rigid' or 'flexible' due to particular affordances and constraints associated with the materiality of the technology (Barley, 2015; Leonardi, 2011, 2012, 2013; Leonardi & Barley, 2010; Marabelli et al., 2016; Zammuto, Griffith, Majchrzak, Dougherty, & Faraj, 2007). This is evident again with the different performances of what is supposed to be a clear-cut G2E e-government self-service (chapter 7). Technically speaking, the standardised system can indeed perform e-government services without any intermediate sociomaterial participants of paperwork, legacy system or HR personnel (See Table 7.1). Nevertheless, within the MoA, the standardised ERP is performed to lack the necessary accountability measures and hence is co-performed by the government employees in unison with the paperwork. The MoB on the other hand, backstage the standardised system altogether so as to perform their newly implemented HR system to be the 'main protagonist'.

Besides, it is not the question of whether the centralised system has the technical capability to process G2E public services. From the empirics (Section 7.1), the standardised system is clearly technically capable of conducting the self-service work without the aid of legacy systems or manual work. As established in the previous section, it has more to do with the 're-intermediating' of the HR personnel to be part-and-parcel of the G2E performance. The emergent performance – which is a more of G2G2E one – serves to legitimise the performers in the HR and marginalise the standardised system.

To recap this part of the section, the standardised technology – as expected from co-performers in a dramatised performance – is enacted to confirm the current performance of other performers in the G2E e-government service delivery. Depending on the unfolding intra-action, the other performers can be the HRB and its officials; or it can be legacy systems and HR personnel in the ministries. The implication of conceptualising standardised technology as a co-performer is: (a) System becomes a legitimising device that confirms performances to be according aspired 'best practices' of the HRB. (b) The audience (i.e.,

ministry employees) can call out to the standardised system as a way to discredit the system's co-performers (i.e., HRB officials). (c) The standardised technology is performed to be an 'inflexible, insensitive and inadequate' performer in ministries as a means to justify the co-performers of the legacy systems, paperwork and HR personnel in the G2E public service delivery.

In addition to the co-performance of standardised ERP with others (like the HRB officials in some performances or legacy systems in ministries as indicated above), the system also co-performs with the signature throughout government. Indeed, the primordial public administrative practice of signature has emerged to be integral to the working of the centralised system across Bahrain.

The justification is that the signature provides the 'extra checks and balances steps' needed to compensate for the electronically performed 'best practices' of the formalised ERP system (Section 7.4). These are deemed important to prevent misuse of the e-government self-services. In any case, what can be contended from the findings is that the legacy practices of signature serve to be more than just essential fiduciary controls requirements of Bahrain's government work. Indeed, the signature proves to be integral to understand how a massive Bahraini national ERP system can work out in a setting where the conditions of its existence are limiting. Due to this, a more detailed analysis is warranted to explore the role that signature has as it co-performs with the standardised technology.

The materiality of the signature is so engrained within the Bahrain's administrative ethos that it is not conceived to be a salient practice. Indeed, the permeation of the signature pre-dates the modernisation effort through ICT means which have found their way into the e-government practices. For the standardised system to work in Bahrain, the signature has to negotiate itself into the newly introduced e-government practices. The most notable one is augmenting the centralised enterprise system with an e-archival system, Saperion (Section 7.4.2.), as a mechanism to capture the materiality of the signature. It is this augmentation that enacts the signature to be a co-performer with the standardised technology in the delivery of e-government services.

A pertinent question is what makes the signature important that it cannot be replaced by the technological artefact of the ERP system? To put it differently: what makes the primordial administrative practice of signing to be stubbornly reconstituted into the electronic public

service delivery in Bahrain? This comes despite viability of the standardised technology to eliminate the need for the signature. What is observed rather is that the signature is a co-performer along with the standardised ERP for the provision of e-government services in Bahrain. This question can be addressed in three points:

First, the materiality of the signature is inextricably associated with unique social performers. What makes it different than, say, 'pressing a button', is that it cannot be dissociated from the person signing. In contrast, the boundary setting of logging in electronically is that it can extend to whoever shares the same login credentials. Hence the system does not differentiate individuals as long as they pass through its authentication process. It is a way of replacing the subjective positions virtually constructed by the system with that of social actors themselves. In contrast, the socio-historical practice of signing performatively produces participating performers to be integral to the overall administrative performance. That is, it produces the social performers who sign to be "obligatory passage points" (Callon, 1984; Law & Callon, 1988) of administrative operations in Bahrain. This empirically emerged in the findings where HR personnel (both in MoB and MoA) expressed their distrust of the standardised systems and its associated 'best practices'. For them, in order to trust the system, it is important to constitute their own sociomaterial members – paperwork, technology or individuals – to be renegotiated into a performing group (Section 7.3). They are satisfied even if that involves backstaging the signature process (as in the case of MoA for leave application) in cases where it is not formally constituted to be part of the standardised system (as is the case of the Saperion system for promotion in figure 7.9). The point here is that the materiality of the signature is performed to be indispensable from the expected paperless e-government transformation in Bahrain.

Second, since the signature is associated particularly with social actors, it facilitates the 're-humanising' of the impersonal standardised system. 'Re-humanising' here means to re-constitute the human element to co-perform in what is perceived to be rather rigid, impersonal and even impassionate ways of performing e-services through the system. A central objective of standardisation through technology is to achieve fairness. However, fairness is a vague term that is open to interpretation given that standardisation can imply fairness through uniformity (Timmermans & Epstein, 2010). However, the case findings demonstrate that the street-level bureaucratic discretion (Lipsky, 1980, 2010) is being reinstated to be an integral part of performing the standardised system in Bahrain. According

to ministry officials, fairness is more than just ‘Sawaseya’ (or egalitarian) objective across the public sector. To them, a way to be fair is not necessarily to treat all cases uniformly but to address cases according to their historical context, which is generally left out in the formalisation process of standardised e-government processes (Henman & Dean, 2010; Toll & Mazmanian, 2016).

This is to say that to be fair is to be just; and to do so is to apply the common parlance of applying ‘Rooh AlQanoon’ (‘Spirit of the Law’) in performing the standardised system. This shared cultural norm allows for leeway to conduct street-level bureaucratic performance within the legal framework of the Civil Service law (Lipsky, 1980, 2010). So for the modernisation effort to be conceived as fair, it has to include other actors – both social and material – to be part of the performance of the standardised system, whether directly in front stage or indirectly in the backstage. For instance, the Rooh AlQanoon example where HR personnel switches the submitted annual leave of a ministry’s employee to medical leave in light of the employee in question falling ill during his absence (Section 7.2.1). This is what Goffman indicates as performing ‘giving’ and giving off’ an impression. Analysing this example, the ‘give’ occurs as the HR personnel “effectively project a given definition of the situation” (Goffman, 1959, p. 18) to the HRB standardised system that the employee did indeed follow the procedure to obtain medical leave instead of annual leave. Such changes are reflected (or staged) in the employee record of the centralised system. In the meantime, the same performance ‘gives off’ an impression to the employee that “effectively fostered the understanding that a given state of affairs" (ibid, p. 18). Therefore, the signature, in a way, allows the human touch ‘being staged’ to address personal concerns of the ministry’s employees, while maintaining the ‘staging’ of compliance to formal standards through the central system.

Third, the materiality of the signature also serves as the means for the dramatisation of the formalisation process, which is made virtually intangible by the electronic transformation of government. What is peculiar for Bahrain’s case study is that the materiality of the manual paperwork is made relevant for accomplishing the standardised system mainly due to the signature. This statement is in contrast to the IS literature which argues that the paper-based devices fulfil technical deficiency of the standardised system (Al-Hejin, 2013; Hanseth et al., 2006; Jones, 2014). As indicated in the empirics, the technical know-how and resources are available within the HRB to virtually replace the signature with an electronic form of

approval (Section 7.3.2). Besides, the ministries can rely solely on the standardised system and even their own legacy system to perform the leave application without the need for a signature on paper. However, what the signature does is that its materiality dramatises the performance of the service. This is because the invisible nature of conducting e-services lacks the material tangibility of formalising something by 'putting it in writing'. In other words, having the public service delivery performed purely electronically is to do so 'without the pageantry' (Goffman, 1959, p. 163) involved in the 'historical action' (ibid) of signing a piece of paper.

Paradoxically, the act of signing on paper contributes to the formalising process of establishing the electronic transformation of public administration. To put this in another way, the paper formalises the paperless through the dramatisation of the public service delivery. This is evident empirically with the Statement 52 form (Figure 7.8). No change can happen to the electronic record in the system without an explicit signature on the form (Section 7.4.2). The implication of this is that attending to the signature in addition to the standardised system requirements leads to more bureaucratic work (Cordella, 2007) despite the decentralisation rhetoric promised (Chapter 5).

To recap this section, the co-performance of both the signature and standardised technology is integral for the accomplishment of Bahrain's e-government transformation. This is articulated in three analytical points. First, the signature is associated with certain social actors that are re-intermediated to the e-government service delivery in Bahrain. Second, these human actors who are associated with signature are essential for the modernisation of the Bahrain public sector as to personalise public service delivery. Third, the signature serves to dramatise and materialise the performances of e-government services.

8.2.4. System as Sign-equipment of Modernity and Progressiveness

This section explores the implications of performing the standardised ERP to serve as a technical manifestation of a prop (or sign-equipment) that aids in the expression of a particular image. More specifically, this section discusses the performative implications that the standardised system is one among other formalised "assemblages of sign-equipments" (Goffman, 1959, p. 33) that serve as props to convey a certain reality about Bahrain's government – one that eludes to the Kingdom's strive for modernity and progressiveness. This re-conceptualising of enacting the standardised technology as a sign-equipment for such performances sheds some light on how ICT advancements are carried out in Bahrain despite the documented scepticism in the literature of such accomplishment (Common, 2008; Jreisat, 2009; Shoib & Jones, 2003).

What can be analysed from the case findings is that the centralised system is enacted as a prop to foster an idealised image of the HRB. The fostered image is that of readiness to use ICT for modernity and stability. The intended audiences are the Bahraini public, international media and the top officials of government. So it is imperative that standardised system does indeed work to demonstrate the HRB's active role in realising the Economic Vision 2030 (Chapter 5). What makes the HRB's public administrators – both at the operation and executive levels – vigilant to pursue ways to make the standardised system work are in three points:

Firstly, the projection of a reality that the system is working fosters a positive image of the HRB. As shown in the findings (Section 6.2), the HRB directors pro-actively instruct their employees to record their work practices in the standardised system. The intention is to project a reality of the directorate to be adherence to internationally recognised and standardised 'best practices' of ISO (Bruce, 2005, p. 110; Cortada, 1998). In turn, the accomplishment of technology standardisation portrays the directors to be active agents in ensuring quality in work practices according to international standards.

Secondly, despite the possible (mal)practices of enacting the standardised system (section 6.2), the system is still actively supported by the executives for its "informating" effects (Zuboff, 1988). Informating – as Zuboff explains – irrespective of wherever IT is implored to improve work processes – generates data about the work tasks and the associated participants.

This accumulated data in the centralised system can serve to legitimise the positions of the directors as 'modern decision makers' who base their rulings on 'actual and quantifiable facts' about Bahrain government's civil service health. Hence, the system's data and subsequent reports is a prop to support the HRB as the only official authority on HR figures in the country (See Figure 5.9).

Thirdly, the performative implications of standardising technology across the whole Bahrain public sector produces the HRB not just as technology developers but also as legal experts. The standardisation of technology through 'indefinite extension' (Henman & Dean, 2010, p. 80) transforms and commensurates the HRB from mere government administrators to knowledgeable experts and law-bringers across Bahrain. These performances frequently emerged in the fieldwork observation sessions where topics of legalities are articulated in intra-directorate and inter-departmental correspondence. This newly realised identity of knowledge workers legitimises the authority of HRB officials to be harbingers of the Bahraini law and enforcers of its 'best practices'. Therefore, system is enacted as a sign-equipment to support this idealised image of official law interpreters contributes to the HRB's enthusiasm to make the system work.

This conceptualising of the standardised system to be sign-equipment for projection of an image of modernity can explain the ranking achieved by Bahrain's government. The most recent United Nations E-Government Survey indicates that Bahrain is ranked as 24th internationally in their E-Government Index, while being No. 1 among the Arab nations (UN, 2016). Such 'ranking' valuation is not merely a passive representation but is constitutive of Bahrain as a global player in ICT-maturity (Pollock, 2012). So in essence, the ranking of Bahrain performatively (re)produces Bahrain to be a 'world-leader' in ICT-based public services transformation; a success story and inspiration to fellow Arab nations to follow suit. It does so, however, by maintaining this front to the UN (staging) and in the meantime complying with the local traditional and sociocultural demands of other audiences (being staged).

This reinforces the national identity of 'Al Bahrain Sabbagah' i.e. Bahrain is [always] a Pioneer (Section 1.2) and explains Bahrain's drive to make such a nationalised ERP system work. In the meantime, the Bahraini officials do not abandon their patriarchal cultural duties of aiding their fellow Bahrainis, albeit such performances are backstaged for the risk of discrediting the modernity impression they strive to maintain (Goffman, 1959). This national

drive does contribute to the accomplishment of standardisation in Bahrain, despite the imperfections and effort to attend to varying audiences. This national identity is in turn reinvigorated to the general public that emerged when participants talked about Bahrain in relation to other nations, more specifically the Gulf.

8.3. Summary

This chapter presented an in-depth analysis of the case findings using a Goffamensque sociomaterial framework. The overarching theme that underlines the analysis is to understand how a national standardised ERP can be accomplished in seemingly unfavourable conditions of its working through a sociomaterial dramaturgical lens. In brief, the standardised technology is performatively enacted and re-enacted to fulfil different dramaturgical roles, i.e., audience, stage, performer and as sign-equipment. In each and every enactment, there are performative implications on the participants as a consequence of the system's intra-actions. This chapter demonstrated that the central theme of the system's intra-action is for 'staging' modernity while maintaining local obligations are 'being staged'. The sociomaterial dramaturgical theoretical framework used here is useful to explain the shifts in enacting the 'standardised' technology in various intra-actions.

The following chapter discusses the implication of this analysis on the relevant IS literature.

9 Discussion: Audience-mediated Standardisation, Sociomaterial Capital and Imbrication

9.1. Introduction

This chapter discusses the possible contributions that this research makes to the IS literature of standardisation technologies in general. Each discussion section contributes to a particular body of IS literature. The first discussion (section 9.2) advocates that a sociomaterial dramaturgical analysis provides productive analytical tools to conduct empirical IS research. Extending the sociomaterial dramaturgical analysis, it discusses the centrality of the audience to mediate the subsequent sociomaterial performance to configure and reconfigure the standardised system. The literature that this contributes to is the practice involved in enacting standardised technology. The next section (9.3) argues that the notion of sociomaterial capital as a practice is productive to understand the role of Wasta in relation to technology. The contribution is situated in IS literature that is concerned with cultural conditions in relation to the implementation and use of standardised technology. The third and final discussion section (9.4) draws on the imbrication term to contend that modern and pre-modern work practices are inextricably interlinked and necessary for technology standardisation to work in Bahrain.

This section contributes to the literature that is concerned with on IT standardisation as a means for transforming e-government services.

9.2. ERP Standardisation: An Audience-mediated Sociomaterial Dramaturgical Accomplishment

The main argument that underpins this discussion section is that the 'technology of standardisation' is a performative accomplishment, which is enacted according to specific sociomaterial dramaturgical performances. It is through a sociomaterial dramaturgical analysis that we can understand how such a national standardised ERP system is made to work. The theoretical contribution lies with the assertion that the standardised system is performatively enacted differently according to the situated context, which is *audience-mediated*. Subsequently, this section makes a modest contribution to both the theory and the literature of standardised technology, more specifically, the practices involved in the accomplishment of standardised ERP technology.

This discussion section follows up closely on the previous chapter's case analysis. To recap, the analysis presented the performative implications of enacting standardised technology in Bahrain as it assumes different dramaturgical roles. The sociomaterial Goffmanesque framework provides a conceptual lens to analyse the performative implications as the standardised system shifts dramaturgical roles as consequence of its enactment. It is through particular 'staging' and 'being staged' performative manifestations that the national standardised ERP is accomplished differently in various scenarios. This section extends this a bit further by arguing for the centrality of the audience in the constitution of the 'staging' and 'being staged' performances.

First, we need to address a fundamental question of the analysis: how do we know who the audience is? In some instances, it is the system (section 8.2.1) and in others it is the line managers within the HRB (section 8.2.2). This is where the sociomateriality notion of agential cuts comes in (Barad, 2003, 2007; Orlikowski & Scott, 2008). We are not sure which sociomaterial participant is the performer or the audience apriori but only after the intra-action has taken place.

Let us look at examples of both where audiences are defined differently for the same e-government service. In the application for leave using the centralised system, the audience of this particular intra-action is the system itself. The audience's expectations is for conformity to the civil service standard as enforced by the data integrity rules of the centralised system (Henman & Dean, 2010; Toll & Mazmanian, 2016). In another intra-action, a MoA employee fills out paper form to apply for leave. In this example, the audience is the HR personnel of the ministry. The HR personnel expectations are that the user fulfils the internal requirement to apply for leave (Section 7.3). Since the ministry's employee does not encounter the centralised system to apply for leaves, the system is not the audience in the MoA.

What can be picked up from these examples is twofold: (a) the who or what is the audience in the current encounter is made clear from the current unfolding intra-action. (b) the audience contributes to the definition of the encounter's context. It is these two theoretical assumptions that underpin the dramaturgical sociomaterial analysis. For us to understand the unfolding performances, we need to understand the context which they manifest, which in turn in audience-defined.

This statement can be counterintuitive and interpreted as a chicken-or-egg argument: how do the audience define the situation to guide the subsequent intra-actions when the intra-actions themselves define who the audience are? It is here where agential realism sociomateriality assumptions are useful. According to sociomaterial position, what matters are not who the participants are of an encounter, because they are not pre-defined or pre-existing (Barad, 2003; Orlikowski & Scott, 2008); rather it is through sociomaterial intra-actions that those participants are produced. As a consequence of the intra-actions, it becomes clearer which sociomaterial participants assume the various dramaturgical roles. In other words, it is *after the performance takes place* that we the observers can point out who the performers and audience are in its dramatisation. This sociomaterial assumption is also in line with Goffman's dramaturgical analysis where roles keep shifting in various scenarios (roles are enacted in intra-action) and the audience contribute to the definition of the situational context. This audience-mediated sociomaterial accomplishment of standardised technology provides a novel analytical lens of engaging with ways that technology artefacts are enacted in different situations.

Therefore, for any performance, for the standardised technology to be meaningful, it is fundamental to understand the situation defined context (Avgerou, 2001; Leidner &

Kayworth, 2006; Orlikowski, 2010; Walsham, 1995). According to a sociomaterial dramaturgical analysis, it is the audience that mediate the intra-actions by defining the situation with regards to e-government services. For instance, a particular client might receive preferential treatment than others as they constitute to be different audience, and hence have different expectations of services. Also, the audience is not a static entity but is constantly being redefined. For instance, provision of government service online through the ERP varies considerably than when performing the same service when the individual visits the HRB premises (Table 7.1). As demonstrated in the findings (Section 7.4), the re-definition of the audience when the client visits necessitates a sense of urgency. It is this shift in context where even the same client (i.e., the same audience) demands a different performance from the HRB staff. The key point here is that 'technology standardisation' in Bahrain is accomplished not through technology-mediated means. But rather 'technology standardisation' is audience-mediated, where the audience is the sociomaterial assemblage that defines the current situation.

This conceptualising of standardised technology accomplishment to be audience-mediated provides a novel approach to sociomaterial approach to studying technology. What matters here is the audience-mediated defining of the current situation that provides us with a contextualised understanding of the anticipated practice – whether a formal, informal or amalgamation of the two – which is needed to accomplish the standardised technology. So in addition to arguing that "IT matter" (Orlikowski & Iacono, 2001, p. 133) and that "matter matter" (Barad, 2003, p. 803) in studying IS (Orlikowski & Scott, 2008), a Goffmanesque sociomateriality analysis allows us to add that "audience matter" in the 'setting the settings' of enacting the system. This audience-mediated approach is particularly useful in understanding how the 'same' standardised system is enacted and is performatively produced differently in various encounters.

This conceptualisation entails some discussion points to the literature in two ways: One in the theoretical conceptualising of standardised technology accomplishment, and the other with regards to the IS standardisation 'best practices' literature.

First is that the sociomaterial dramaturgical analysis contributes to the ongoing technology agency/structure debate. It provides a conceptual framework to examine the ERP technology artefacts beyond the assumption that they are embedded with inherent properties which affordances and constraints on the designated users' actions (Leonardi & Barley, 2010;

Leonardi, 2011, 2012; Zammuto et al., 2007; Strong & Volkoff, 2010; Volkoff & Strong, 2013). Rather it allows us to appreciate the "openness" (Scott & Orlikowski, 2014, p. 874) of standardised technology as its characteristics is being shaped and reshaped by situated sociomaterial practice (Introna, 2013). This claim is substantiated empirically in the vignette about different ways of accomplishing the standardised system (Section 7.1). The system is enacted to be the 'one and only HR system' within the HRB, but it is enacted to be the 'referential system' in the MoA, while being enacted as a 'deficient' one in the MoB (Section 8.2.2). This disparity in enacting the standardised technology properties demonstrates that such properties are not inscribed into the artefact per se, but is (re)enacted to be so following particular sociomaterial performances.

Moreover, another emerged finding which supports this argument that technology features are not entirely inscribed beforehand but enacted in practice is the Wasta vignettes. The system is enacted in such a way as to facilitate Wasta (Sections 6.3.3 and 6.3.4). This observed phenomenon is not due to some technical inscription latent within the algorithm of the standardised system as advocated by critical realist sociomaterial IS scholars (Leonardi, 2013; Strong & Volkoff, 2010; Volkoff & Strong, 2013). Rather the technology becomes affordances that enable Wasta to take place in practice. Furthermore, it is not a surprise that such appropriation of the standardised technology to facilitate Wasta cannot be anticipated by its designers (Suchman, 1987, 2007). The point here is that what constitute to be the system's affordances and constraints become relevant only in their enactment. This corroborates practice-based IS studies that inform us how the very same technology can be enacted differently in situ (Barley, 1986, 1990; Orlikowski, 2000).

This conceptualising of enacting standardised technology is somehow similar to technology-in-use situational practice (Orlikowski, 2000). However, this research analysis differs from technology-in-use in subtle ways. One is that agency lies with human actors to enact certain technology-in-use structures. This study decentres agency by assuming that it shifts as a consequence of the intra-actions of sociomaterial assemblages. Second, the focus of technology-in-use theorising is to establish how technology's structural properties change over time. In this research, the interest lies in the possible performative implications that the intra-action has on its constitutive participants (including the participating standardised system). Third, Orlikowski (2000), as with any practice approach, does emphasise the significance context in the understanding of technology-in-use. However, she does not clearly

show how such a context is redefined in different occasions. The dramaturgical take on the sociomaterial analysis informs us that the audience is instrumental in defining the situation of the enactment of the standardised technology. In sum, the audience-mediated sociomaterial performance of standardised technology concurs strongly with the practice-based enactment of technology in situ (Orlikowski, 2000) and the more recent sociomaterial IS research (Orlikowski & Scott, 2008, 2013; Scott & Orlikowski, 2014). However, this research adds that a sociomaterial dramaturgical position can also be helpful in informing us of affordances and constraints of the system came to be in an intra-action.

Furthermore, the sociomaterial dramaturgical analysis attempts to extend the argument about the processual nature of the properties and boundaries of what constitutes the standardised system further by articulating that it is audience-mediated. The sociomaterial part of the analysis enables us to observe that standardised ERP functionalities are in constant flux and are temporally stabilised with specific encounters (Introna, 2013; Orlikowski & Scott, 2008; Scott & Orlikowski, 2014) rather than being "given the order of things" (Law, 1999, p. 3). The dramaturgical part of the analysis points out that the audience is central in defining the context of the sociomaterial encounter. The synthesis of sociomateriality and Goffman analytical premises provides the necessary tools to understand how a vast pan-departmental standardised ERP can be worked out where the conditions of its functioning are limited. In effect, what is being argued here are not ontologically separate Oracle systems are being created. Instead, it is the varying appropriations of the system, in association with (or without) the other sociomaterial teammates, that (re)configured the centralised system to be enacted in accordance to the audience-defined situations.

In effect, this research demonstrates that a sociomaterial analysis, which draws on Goffman's dramaturgical tools, is useful and productive for empirical IS studies. This is not to claim that agential realism sociomateriality does not have analytical purchase as advocated by some (Leonardi, 2013). This has been proven otherwise in recent IS empirical studies (See Doolin & McLeod, 2012; Orlikowski & Scott, 2013; Scott & Orlikowski, 2014; Wagner et al., 2010). However, a sociomaterial analysis – at least on its own – is not sufficient to arrive to this thesis's argument. To unpack this, it is unclear how certain scenarios work practices follow standard procedures in engaging with technology, while at other scenarios it does not (i.e., Wasta). Sociomateriality is helpful to point out that the standardised system is reconfigured in different intra-actions. Also, it tells us that technologies of standardisation are performative in

the sense that it includes and excludes in its shaping and re-shaping (Henman & Dean, 2010; Timmermans & Epstein, 2010). However, it does not inform us about the conditions for such happenings. To understand the change in intra-action (and hence performative implication), it is vital to understand the situational context. Through theatrical metaphors, Goffman's sociomaterial reconceptualising allows us to articulate what is included and excluded in the technology of standardisation in the 'staging' and 'being staged' performances (Table 8.1).

Therefore, it is the Goffmanesque analytical flavouring that provides an agential realist approach of sociomateriality (Barad, 2003, 2007) with the necessary conceptual tools to make sense of empirical findings (in this case study at least). Indeed, there are recent papers that point out the viability of sociomaterial and Goffman's dramaturgical analysis (Hafermalz et al., 2016; Pinch, 2010). There are even a few empirical studies which focus on the technology's materiality by drawing on critical realism's sociomateriality and Goffmanesque dramaturgy (Barley, 2015; da Cunha & Carugati, 2011; Marabelli et al., 2016). However, this research is among the earliest works that specifically draws on an agential realist position of sociomateriality and Goffman's dramaturgical analysis to conduct IS empirical research.

In effect, this research has subtle points to contribute to the IS literature with regard to the standardisation of technology. More specifically, it situates the contribution within the long-standing debate of technology standardisation vs localisation (Hanseth et al., 2006). In short, this study questions the contestation in IT standardisation between the accommodation of 'best practices' and the resistance to local practices. It contends that both accommodation and resistance practices are simultaneous conditions for the enactment of the technology of standardisation. From the sociomaterial dramaturgical lens, the 'staging' performance of accommodating HR 'best practices' as well as having its resistance as 'being staged' are both necessary for the accomplishment of the national ERP. It is the audience-defined context that indicates an accommodation or resistance performance to be suitable for the arising situation, with neither performance eradicating the other but are backstaged at least for the duration of the current performance.

However, this position is not shared by many IS scholars with regard to IT standardisation. Many studies (Myers, 1994; Swan, Newell, & Robertson, 1999; Wagner et al., 2010, 2006) consistently, and convincingly, argued against forcing the standardised best practices on a population. This is especially so in the most recent technology standardisation studies of Information Infrastructure scholars as well (Braa et al., 2007; Hanseth et al., 2012, 2006). For

the standardised technology survive, it should at least replace ‘best practices’ with ‘negotiated practices’ (Wagner et al., 2010), which is achievable through negotiation and compromises among the various interest groups (Petrakaki & Klecun, 2015; Yeow & Sia, 2008).

In a similar note, Information Infrastructure scholars advocate the bottom-up standardisation approach of working with the current infrastructure to reach common standards that cut across all interested parties (Braa & Hedberg, 2002). The more recent work promotes more innovative ways of accomplishing standardisation that is generally bottom-up, such as generification (Silsand & Ellingsen, 2014), grafting (Sanner et al., 2014) and cultivation of information infrastructure (Grisot et al., 2014) among others. The bottom-up cultivation of the legacy systems approach is advocated especially for the cases (and not dissimilar to this case study) where standardisation should encompass relatively large groups and inter-organisational entities (Hanseth, 2014). Hence, the common argument is, for the national HR ERP in Bahrain to work, it should be integrated with the disparate legacy systems and tolerant of local work practices within departments.

Controversially, this empirical research demonstrated that a top-down, *de jure* standardised ERP can indeed survive despite the conditions of its endurance to be bleak. It does in spite of not engaging with the user stakeholders (i.e., HR personnel as well as all the ministry government employees) in the design process. The justification for not taking the intended users’ feedbacks seriously is that the technology derives its legitimacy from the Civil Service Law and hence it is representative in practice. Furthermore, the HRB, who the system owners did not budge from their non-inclusive approach even after the implementation through ‘selective accommodation’ of the ministries’ needs (Wagner et al., 2010). In other words, the national ERP in Bahrain can be considered to be an artefact which does not entertain any recommendations of loose coupling and flexibility (D’Adderio & Pollock, 2014; Hanseth, 2014; Silsand & Ellingsen, 2014). Nevertheless, as this study shows, the standardised technology – which has been imposed on disparate user groups can still work, and it works in particular ways.

This statement begs the question of what makes the top-down standardised ERP technology work in Bahrain across organisations. The answer to this enquiry lies with analysing the case findings from a sociomaterial dramaturgical approach (Chapter 8). It is through particular dramaturgical inter-actions that performatively accomplishes the standardised technology.

Briefly, the analysis can be articulated in three interrelated points: First, it is through the range of dramaturgical roles that the standardised technology is performatively enacted as a consequence of intra-actions that lies behind the accomplishment of the national ERP. The standardised system is enacted to be an audience, stage, co-performer or sign-equipment based on the situated context of its enactment. Second, in each dramaturgical role the standardised system assumes, the participants are involved in 'staging' and 'being staged' in its performance. The participants involved in 'staging' performances convey airs of modernity and conformity. Yet in the meantime, they are also 'being staged' as ones who are active in addressing the concerns of the other audiences. Third, the enactment of the standardised system is contingent on the audience-defined context and informs us of the 'staging' and 'being staged' implications on its participants. This sociomaterial dramaturgical conceptualisation of standardised technology to be fluid in its role is useful to understand how a seemingly rigid modern technology artefact can be worked out despite the odds stacked against its accomplishment.

Therefore, the postulated argument that standardised ERP's 'best practices' are accomplished through particular 'staging' and 'being staged' audience-mediated performances rather than inherent in the technology is in contrast to the conventional ERP studies. More specifically, the ERP studies (Adam & Myers, 2003; Benders et al., 2006; Davenport, 1998; Heeks, 2002; Howcroft et al., 2004; Lowe & Locke, 2008; Rose et al., 2005; Wagner & Newell, 2004) which assume implicitly or explicitly that the technological artefacts impose their own logics on the local setting and through a constant dialectic processes of technology is implemented through an ongoing accommodation and resistance (Pickering, 1993), until one practice logic dominates the other. This study is not about such ongoing contestation of standardisation vs localisation practices (Boudreau & Robey, 2005; Robey, Boudreau, et al., 2002; Hanseth et al., 2006, 1996; Truex, 2001; Rose et al., 2005; Hawari & Heeks, 2010), though it may be examined from such an angle. Rather, this research demonstrates that through particular dramaturgical situations the standardised or local are enacted in situ. At times the standardised system is performatively enacted to be dominant 'sole and centre stage' in certain settings but is backstaged at other redefined situations (section 8.2.2). Indeed it is through specific sociomaterial practices that different encounters produce different constitutive realities of the standardised system (Cecez-Kecmanovic, Kautz, et al., 2014; Mol, 1999, 2002).

This enactment of different realities of standardised technology also has some subtle points to contribute back to the IT standardisation studies which are mainly concerned with the success/failure of technology. A question in this regard would be along the lines of: is the national standardised ERP system in Bahrain a success or a failure? The answer to this question is not simple; the system is enacted in various sociomaterial performances to be a success or a failure. We can arrive at various conclusions on its success or failure from a project management perspective (DeLone & McLean, 2003; Linberg, 1999) or from a stakeholder satisfaction perspective (Dwivedi et al., 2015), which is not the focus of this study. Also, it is it not the objective of this research to synthesise a success evaluation model. Nevertheless, this research does contribute to this debate in the sense that a technology's success or failure is not ascertained from interests groups where some are winners while others are losers in any technology implementation (Yeow & Sia, 2008). Neither this study answer lies within the individuals' responses to this question (Linberg, 1999; Saxena et al., 2016).

Instead, this research demonstrates that the success or failure of the system is enacted *in practice*. At times, the standardised technology is enacted or 'staged' to be as ostensively prescribed by its designers in the frontstage. But in the backstage, it is 'being staged' to be a failure, at least in terms being the one and only legitimate technology artefact in the public service delivery (Chapter 8). This argument strongly corroborates the recent seminal work that postulates that the system 'success' or 'failure' is performatively accomplished to be so (Cecez-Kecmanovic, Kautz, et al., 2014) than is a fact awaiting to be assessed. So what this entails is that IS standardisation studies should go beyond the ex-ante factors that positively or negatively impact ERP implementations that dominate the IS literature (Saxena et al., 2016; Shaul & Tauber, 2013). Instead of aiming to achieve the perfect 'fit' and evaluate the feasibility of imposing standardised technology – which is generally the case in IS studies conducted in Arab countries (Cunningham & Sarayrah, 1994; Hawari & Heeks, 2010; Hill et al., 1998; Loch et al., 2003; Straub, Loch, & Hill, 2003) including Bahrain (Kamhawi, 2007, 2008) – it is more fruitful to look more closely at the actual sociomaterial dynamics involved in performing the said technology. Indeed, the enactment of a nationally standardised ERP system in Bahrain cannot be appreciated without the deeper understanding of the subtleties and intrinsic situations that enact the system's realities (Cecez-Kecmanovic, Kautz, et al., 2014).

To emphasise the point with regard to the importance of contextualised specificities and nuances, this study provides a clear account of how the sociocultural practice of Wasta is implicated in the enactment of a standardised ERP system in government. This is in contrast to the other IS studies which engage with Wasta to be another barrier or challenge to consider in the implementation of ICT (Almulla, 2012; Alsowoyegh, 2012; Brandstaetter, 2014; Fidler et al., 2011; Kanaan, 2009). Generally, they draw on research participants' perceptions of Wasta in relation to ICT-mediated advancements. However, they do not provide a clear narrative of how it is played out in practice along with technology in question. The 'successful' enactment of national ERP in Bahrain cannot be fully appreciated without a sociomaterial dramaturgical analysis of the case study. (The next discussion section 9.3 is dedicated to reaching this argument in more detail). Point to be made is that, as with other performances, the audience are vital to understanding the unfolding of Wasta in situ. Overall, a sociomaterial dramaturgical lens is particularly productive to understand the nuances in performing a massive national ERP standardised technology according to the emergent defined situations.

To summarise this discussion section, the reconceptualising of the standardised system's role to be accomplished according to an audience defined situation is fruitful in shedding light on Bahrain's case study. What can be argued from this is that 'technologies of standardisation' are not static and with inherent agency to impose their own logics on the locals (Davenport, 1998, p. 122), but rather is a performative accomplishment. Moreover, the standardisation technology is constantly being reconfigured in practice and is mediated heavily by sociomaterial audience and settings.

The audience-mediated performative enactment of technology is an explanatory theory. Neither it is descriptive in the sense that it portrays standardised technology use, nor is it predictable where we can ascertain what will be the outcome of performances. Rather it can be explanatory by providing insightful ways to understand how the standardised technology is accomplished. Doing so enables us to demonstrate how particular audience mediated situations call for standardised technology to be enacted in one way and differently in other situations.

Besides, the audience-mediated sociomaterial analysis emphasises the fundamentality of a situated context to sensitise us to the accomplishment of 'standardised technology' in situ. This study emphasises the importance to appreciate the locally meaningful ways underlying

the standardisation of ICT-based reformation (Bada, 2002; Shoib & Jones, 2003). From a Goffmanesque analysis though, the specificities of the context of enacting the standardised system are very much contingent on the current audience. It provides the conceptual tool to understand how the same standardised technology is enacted one way in one situation and a different way in another. As John Law remarks, we live in a "world of performance or enactment" (Law, 2008, p. 635), so it seems apt to end this section by contending that a sociomaterial dramaturgical analysis can provide some insights into such worlds.

The next discussion section explores how the primordial Wasta practice is fundamental in the enactment of the standardised ERP.

9.3. Technology and Sociomaterial Capital

What emerged to be significant to understand the accomplishment of the standard technology in Bahrain is the indigenous cultural practice of Wasta. This section is dedicated to analysing how the nuances of how Wasta is implicated in the enactment of standardised technology in Bahrain.

In previous chapters I intermittently touched on it; I established its permeation in Bahrain society in general (Section 5.1.2 of Chapter 5) and its workings in our case study more specifically (Chapters 6 and 7). It also served to be a negotiating mechanism for granting research access to conduct fieldwork (Chapter 4). It is no exaggeration to state that this thesis would not materialise without resorting to Wasta. Unsurprisingly, it emerged as a crucial practice for the accomplishment of the standardised national ERP system in Bahrain. It is the centrality of this phenomenon to my case study that warrants a separate section for its discussion in this chapter. The main argument of this discussion section is that the historically-rooted practice of Wasta does not exist to undermine the standardisation by the ERP technology nor is displaced by it; instead it is renegotiated to facilitate the national ERP standardisation to be accomplished in Bahrain.

In this section, I first argue that a reconceptualising of Wasta to be a practice is more productive to understand the case study than being a social capital. More specifically, that Wasta emerges as a 'sociomaterial capital' that is constitutive of both social and material in its enactment in practice. Finally, it is this reconceptualising of Wasta to be a sociomaterial

capital that is helpful to contend that Wasta is renegotiated into the ICT modernisation through the technology of standardisation.

Firstly, to understand the role that Wasta plays in the enactment of the standardised system, it is vital to re-conceptualise it as a practice rather than a resource capital. The IS literature (Almulla, 2012; Fidler et al., 2011) that touches upon Wasta as a social capital (Kropf & Newbury-Smith, 2016) implicitly presumes the Bourdieaun conceptualising of social capital (Bourdieu, 1985) i.e., social capital resides or is located within the social actor – either the individual or the group. This theorising of Wasta posits to be a social capital that is accumulated in the form of 'credit slips' by an actor in the social network (Coleman, 1988, p. 102, 1990, p. 306). This transaction-based perceptive treatment of social capital is created and maintained through perpetual asymmetry of creditor-debtor in the transaction-based social exchange (Lin, 2001, p. 151).

This commoditisation of Wasta as a form of capital can be problematic given that Wasta is rather an elusive, dynamic and highly convoluted concept. First, it is epistemologically difficult to locate, measure and differentiate Wasta as a social capital (Grootaert & Bastelaer, 2002; Manning, 2015). This does not imply it does not exist, but it is unclear how to articulate social capital to be possessed by a social entity. Yes, it is generally associated to exist in the Arab region (Cunningham & Sarayrah, 1993; Hutchings & Weir, 2006), but it is simplistic to collectively group the whole society as 'cultural dopes' (Garfinkel, 1967, p. 68) who mechanically adhere to Wasta practices or are overwhelmingly tempted to do so when engaged with standardised technology. Second, individuals who own substantial social capital (Bourdieu, 1985) compared to others does not guarantee that benefits can be reaped in every scenario. These findings have emerged in the literature (Marin, 2012; Smith, 2005) where personal connections do not necessitate better treatment (Frank, 2009). In the empirical case findings, there are many instances where I observed that the formalised standards triumphed over informal Wasta pleas (Section 7.5). What is implied here is that there is more to Wasta than just the accumulation of social capital as wealth to be dispensed for other forms of resources (Adler & Kwon, 2002; Kwon & Adler, 2014). Moreover, such conceptualising of Wasta in relation to technology can lead to contrasting arguments with regard to the process of its accumulation. Besides, there are some who assume that social capital increases with use (ibid) while others argue that it depletes (Schultze & Orlikowski, 2004, p. 104). Third, the attribution of social capital to social agent or even social relations can lead to

tautological statements (Portes, 1998, p. 5). Tautological statements are problematic as they start with the effect and accordingly ascertain the causes for it. For instance, is it because of the high social capital of the director that the standardised system works better in a ministry, or is it because 'best practices' of the standardised system brings about acquisition of the higher social capital of the director in the ministry? This tautology is implicitly apparent in many IS studies that determine that Wasta contributes negatively towards e-government implementations (Fidler et al., 2011; Kanaan, 2009). Indeed, Wasta has been problematised from early research calling to 'tame' it in order foster in economic development (Cunningham et al., 1994). Thus, to avoid falling into such logical circulatory argument, we need to distance ourselves from defining the social capital of Wasta to be 'owned' by the actors or the actor's social network. Instead, to understand the case findings, we need to reconceptualise social capital differently so as to not lose its very essence of being a dynamic and unstructured phenomenon.

Hence, to argue Wasta is a practice lies true to the processual underpinnings of the root word. Wasta comes from the Arabic root word 'Wa-Sa-Ta' which is a verb meaning 'to intercede' or 'to intermediate' (Cunningham & Sarayrah, 1993; Cunningham et al., 1994). It is this verbal definition that implicitly suggests the decentred and dynamic nature of Wasta. This is more in line with recent studies that call for research to address social capital true to its processual (Manning, 2015; Mariotti & Delbridge, 2012) and away from the mainstream of the economic-transactional take in its engagement (Knorringa & Staveren, 2007). Reconceptualising Wasta as a practice implies three aspects to consider: First, Wasta, as any form of practice, is contingent on the situation of its enactment (Schatzki et al., 2001; Suchman, 1987). In other words, Wasta becomes meaningful in relation to a particular setting as well as other participants involved in its performances which are often audience-mediated (Goffman, 1959). Secondly, Wasta is made meaningful not from inherent properties of its concept but in relation to the broader shared assumptions and understanding of what it constitutes (Tsoukas & Chia, 2002, p. 572). In other words, the stability of Wasta is dependent on the shared cultural understanding of its performance (Goffman, 1959). Third, Wasta as a socio-cultural practice does not fit into the problematic Hofstedian deterministic take (Hofstede, 1980, 1983), where culture is pre-fixed and attributed to a collective grouping that causes the success or failure of the technology's implementation (Alsowoyegh, 2012; Coombs et al., 1992; Ford et al., 2003; Khalil, 2011). Generally, such studies articulate with culture to be a national or organisational culture variety (Leidner & Kayworth, 2006), and not

dynamic, temporal and contextual in its enactment (Myers & Tan, 2003). What this study demonstrates is that culture in IS should be engaged as a practice that acts as a 'cultural strategy of actions' (Bertels et al., 2016, p. 578) that are linked to the cultural repertoire of the society's members.

Furthermore, what is explicitly missing in the IS literature as well as the Wasta literature is inherently in the lack of the role of materiality in its enactment. Given that Wasta is associated to be a form of social capital exhibited in the Middle East, there is undue emphasis placed on the social. It is the predominantly social aspects of the interactions that invoke Wasta. The role of the material has largely been marginalised in the social interactions to seek out social capital. To put this into perspective in the case study, the sociocultural practice of Wasta might not occur without the materialistic underlying the whole social interactions, including ICT and/or paperwork. As Introna (2013, p. 331) reminds us that "technologies may cause, condition or mediate social practices to change (more or less significantly, more or less deterministically), social actors interpret, structure or enact technologies in terms of their own purposes (frames of reference, culture, values, etc.) and use them accordingly." This is where a sociomateriality analytical lens can provide us with new ways of understanding social capital, and for this study, as sociomaterial capital.

It is this sociomateriality notion of the social capital of Wasta that can be particularly useful in the re-conceptualising of it to be a sociomaterial capital. Whether material is used as a requisite means for fostering the social interactions, or being directly or indirectly participative in the process itself or even re-produced as the consequence, the material is intrinsically part of the social in the act of invoking the social capital of Wasta. In the case study, the system was designed to implicitly contravene the frowned-upon practices of Wasta. Indeed, studies recommend the deployment of 'objective' technologies to restrict Wasta in its bid to pave the way for modernity (Jreisat, 2009). The presumption here is that the technology is an impartial actor in facilitating public service delivery that challenges the legitimacy of local informal practices that are based on rapport (Kling & Iacono, 1984). However, instead of being pushed aside, the sociomaterial practice of Wasta is being reconfigured to work differently through the system. It is through dramatising certain performances that it generates in situ (Goffman, 1959). Sections 6.2.1 and 7.5 of previous chapters elaborate this empirically by using ICT to 'hasten' the processes within the HRB. In other vignettes, it is invoked to 'track' the progress of requests within the ministries (Section

6.2.2). This entails that sociocultural practices work differently with the materiality of the ERP in ways not envisioned by its designers.

To empirically elaborate this point of Wasta being renegotiated into the materiality of the technology, let us revisit how Wasta dramaturgically performed in the fieldwork. As indicated previously (Section 6.1), the QIDS was designed for 'internal-use' within the HRB only. This renders the QIDS and its performances to be 'blackboxed' (Latour, 1999) from the external user groups or 'outsiders' as Goffman calls them (i.e., all non-HRB government officials). For the ministries, the HRB is an amalgamation of sociomaterial assemblages that intra-act in various ways to process their service request, as if the technology (centralised ERP) and the organisation (HRB) are "inextricably fused" (Orlikowski & Scott, 2008, p. 463) or "constitutively entangled" (Orlikowski, 2007, p. 1437), to which user groups are not privy to observe and scrutinise. This produces the QIDS to be a 'strategic device' (Goffman, 1959, p. 98) implored to control the flow of information received by the designated audiences. This controls the possibility of leakage of what Goffman calls 'destructive information' (1959, p. 141). Indeed, the QIDS has internal information that has the potential to disrupt or discredit standardisation performance of the HRB. The performative outcome of such system design brought about the ICT-mediated modernisation in Bahrain has somehow (re)configured the relation of the service providers and seekers from an 'ad hoc and informal affair' to the 'standardised and soulless' procedure (Bovens & Zouridis, 2002).

It is here where the non-formal ways of Wasta are invoked to peer into the backstage of the HRB workings in order to track their work. Goffman denotes such Wasta practices to perform its participants to be part of a 'clique' (Goffman, 1959, pp. 51–53). A clique is an informal group or team who would cooperate to hide the exclusiveness of their performances to each other, and not demonstrate it to others. This is in contrast to a performance team where all the teammates are performatively reproduced to enact an event or project and their performance is made visible to the audience (ibid). In any case, these emergent practices indicate that the modernised and standardised best practices along with the local sociocultural practices of Bahrain are being folded into each other for e-government public service delivery.

Another notable sociocultural practice that gets folded into the performance of e-government services in Bahrain is the act of signing. Indeed, the signature which is implicated in the ICT-articulated HR practices can be considered to be the material manifestation of the

sociomaterial capital. However, the Wasta is an informal exchange which may (or may not) manifest itself as a signature. Performing standardisation through the system as a sole performer threatens to dissociate other performers deemed necessary for the proper overall performance. So instead of observing a contestation of formalising processes via system and paperwork/signature, we observe that these two confirmatory acts are enacted simultaneously. This is empirically shown in requesting a promotion (Section 7.4), as well as the self-service application in the MoA (Section 7.2). In effect, the act of signing somehow 're-intermediates' the signing party to be constitutive in the accomplishment of technology of standardisation.

This is not to say that the materiality of a signature is the only way that the sociomaterial capital of Wasta can be manifested. On the contrary, Wasta that does not have a material trace which can have substantial material performative implications. A pertinent example of this that affects me directly is the approval of my fieldwork study (Chapter 3). I have not physically acquired any signed document which formally approves my research fieldwork request. Yet, I gained access through oral correspondence which took place in the backstage among the public officials in the HRB. It is tempting to argue that this Wasta enactment is predominantly a social interaction. However, irrespective of the work that social capital invokes, there is some form of materiality involved in its performance. To put it in another way, any changes experienced by the social or material actor has ramifications on both as they are intrinsically intertwined (Jones, 2014; Orlikowski & Scott, 2008). Moreover, I argue that it still has sociomaterial performative consequences. One performative implication is me being a researcher of IS-practices in Bahrain and subsequently the materiality of this thesis. Another empirically related performative outcome of a seemingly socially-exclusive practice of Wasta is prioritising processing of some transactions over others, hence changing the formal interaction order (Barley, 2015). In both cases, there is not material evidence to pinpoint that Wasta occurred, however it is considered to have happened subsequent to its effects on work practices. What renders Wasta to be an agent of performative action in Bahrain's public administrative work lies in the common "cultural intelligibility given constant authoritative use - its citation in particular ways" (Learmonth, 2005, p. 625). Hence, though Wasta is not tangible per se, it is commonly considered to be a "fact of life" within Bahrain society (Karolak, 2016, p. 155) and subsequent organisational work.

To push this argument further, a sociomaterial dramaturgical take allows us to argue that the invisibility of the sociomaterial capital of Wasta renders it to be more powerful in the pursuit of modernisation thanks to the standardised technology. With the explicit and highly meticulous material traceability of e-government processes – in the form of electronic records and signed paperwork – performs (or frontstages) the Bahrain's government to be one of being formal, systematic and transparent affair. These ritualistic formal practices performatively produce Bahrain to be that of an audit society where everyone is subject to formal scrutiny (Power, 1997).

However, the Wasta, which is usually backstaged, does significantly shape what is being formally performed in the frontstage. This is captured empirically in section 7.5 of the previous chapter. In this vignette, a member of the audience (i.e., a ministry official) reached out to the HRB's director in the backstage, hence circumventing the formal procedures that are concomitant with the standardised system (such as helpdesk liaison contact). This subsequent scuffle by the HRB specialist to prioritise the case is because Wasta has performatively shifted her boss (and teammate performer) to be simultaneously a member of the audience. That is, instead of performing only to the ministry official as an audience, the HRB specialist has to perform to her boss as well, who became an audience member as a consequence of Wasta.

The performative implications of Wasta are twofold: The act of Wasta can transform a typical standard performance in public service delivery to one which demonstrates preferential treatment. Second, it is this performance within the backstage and away from the scrutinising gaze of other members of the audience (Goffman, 1959). This renders the invisible act of Wasta to be more potent than the formal ways of public service delivery. These emergent findings question whether Wasta is exclusively either intercessory or intermediary (Cunningham & Sarayrah, 1993; Hutchings & Weir, 2006) and sides more towards the notion that it is both (Brandstaetter, 2014), because for Wasta for to be meaningful it should intercede and mediate across sociomaterial participants of its enactment.

This leads me to another performative implication of the sociomaterial capital of Wasta – or at least its potential – to be divisive in fostering self-discipline. As indicated previously, the standardised system is a device implored to exercise performance monitoring and control of its subjects (Section 8.3.1). However, as demonstrated empirically in chapter 6 (specifically Section 6.2.4), this does not work in every encounter. There are certain HRB officials who

would perform in ways to indicate efficiency but actually are ‘playing the system’. However, given is conditions of its small demographic size, there is always the potential that unnecessary delays to processing of requests can include other audiences. As the saying goes in Bahrain, ‘everybody knows everybody’, which is encapsulated by a participant in the MoB quotation that “… there is no one in Bahrain who cannot know about or reach someone”. Indeed, Goffman reminds us that “the circumspect performer will have to consider the audience access to information sources external to the interaction” (1959, p. 216).

So in addition to performing for the HRB system, there is a potential that other audiences might be called to witness or be informed of the unsatisfactory performance. In effect, it is the looming ‘shadow of the future’ (Axelrod, 2009) inherent in Wasta applicability in Bahrain that makes it the device for governing work practices of public officials (Section 7.5). So ironically, the formal sys*t*em and the informal sociocultural Wasta can be understood to be complementary monitoring mechanisms that facilitate self-discipline in the delivery of public services in Bahrain.

To conclude this section, let us revisit the main arguments with regard to analysing the role of Wasta in relation to technology. First, the local sociocultural capital of Wasta should be theorised as a sociomaterial capital that is enacted through sociomaterial practices. This reconceptualising of Wasta is a critical departure from being treated as a social capital accumulated within social actors (Bourdieu, 1985; Coleman, 1988, 1990; Lin, 2001). Instead, it is more productive to understand Wasta as a sociomaterial capital that is manifests in practice. It can be problematic to imply that Wasta is attributed to a social actor. This is because it implicitly assumes ownership of it as a resource or capital. Unlike other forms of capital (say financial and production capitals), social capital does not behave as them, and more important, it is difficult to locate it in social actors (Adler & Kwon, 2002; Manning, 2015). I argue instead that Wasta comes to being through a sociomaterial practice that is audience-mediated (Goffman, 1959). It is the very act of signing a document or contacting a friend in another department that we can claim that Wasta is being enacted, and when enacted generates performative consequences on those involved.

Second, both the social and material are implicated in the performance of Wasta. The non-social actors are not only taken into account but are considered to be essentially constitutive to the social actors in the social network interaction. What is proposed is not just foregrounding the role of materiality along with socially dominating aspects of social capital

in order to force general symmetry between them (Doolin & Lowe, 2002; Hanseth et al., 2001; McMaster & Wastell, 2005), but rather to point out that both the social and material are co-constitutive of the practices that enact them (Doolin & McLeod, 2012; Introna, 2016; Orlikowski & Scott, 2008). This is to say that it is unfair to argue which superimposes on the other; both the social and material are inextricably entangled in peculiar ways that make it significant in the enactment of HR activities of Bahrain's public sector. So in congruence with Field (2008, p. 1), where "relationships matter" when it comes to social capital practices, I want to add that "matter matters" (Barad, 2003, p. 803) for the accomplishment of Wasta. This is in contrast to the extant social capital literature in general and Wasta literature specifically which assume it to be socially exclusive (Bourdieu, 1985; Coleman, 1988, 1990; Cunningham & Sarayrah, 1993; Hutchings & Weir, 2006; Lin, 2001). Moreover, a sociomaterial dramaturgical analysis of the findings serves to provide the mechanism for accounting for sociomaterial participants in the enactment of sociomaterial capital of Wasta.

The third point is more concerned with the performative implications of Wasta in the performance of standardised technology in Bahrain. Rather than viewing the cultural tradition of Wasta to be a barrier to the modernisation of public services in Bahrain (Fidler et al., 2011; Kanaan, 2009), this research argues that it is through particular reconfiguring practices that condition the accomplishment of the standardisation of technology nationally in Bahrain. This study demonstrates that it is not a contestation of imposing standardised 'best practices' on government practices against the historically and culturally rooted practice of Wasta, but rather what emerges is a product or amalgamation of the two. This is demonstrated empirically in two ways: one is that in many instances where the standardised system's sanctioned 'best practices' breaks down, the informal and backstaged practice of Wasta steps in and renegotiates its way into the standardised ERP technology. Second, the looming Wasta shadow acts as another layer of a self-disciplining device to the formal code of conduct with regard for the effective delivery of e-government services in cases where the standardised system can be manipulated. Hence, Wasta is actually (and paradoxically) vital to the accomplishment and maintenance of the massive national ERP in Bahrain.

9.4. Modernising Bahrain Government through ICT-Standardisation: An e-government transformation or imbrication?

The overall aim of this research is to understand how the standardised technology of ERP is made to work in Bahrain. In line with the research focus, this discussion section aims to establish the argument that the standardised system is performed through the imbrication of the modern and the pre-modern practice modes of operation in the provision of public services. Imbrication here does not indicate only the interwoven state of the social and material (Leonardi, 2011, 2013), the digital and non-digital (Sassen, 2002) or the hybridity of bureaucratic and post-bureaucratic institutional logics (Hayes et al., 2014; Introna et al., 2009), but also the modern formalised 'best practices' and the pre-modern local practices interdependent on each other for the performances of the system. To extend this statement, imbrication here is about the formalised ERP and its concomitant of 'best practices' modern standards are not only supported by the pre-modern local practices, but also that the modern standardised system supports those local practices to take place. This not to say that they do not transform each other, but challenges the notion of one mode of operation displaces the other. It is this interdependence of the modern and the pre-modern that is crucial for achieving the standardisation of the national ERP in situ.

I unpack this line of reasoning in the following three main arguments: the pre-modern practice scaffolds the modern practice logics, the modern scaffolds the pre-modern practices, and finally imbrication of the modern and the pre-modern practice logics is instrumental in shedding some light on the enactment and reconfiguration of the standardised technology in the provision of e-government services. The contribution of the notion of imbrication of the modern and the pre-modern is situated within the modernisation and ICT-based standardisation literature.

For the sake of clarity, it is important to differentiate between what is meant by modern and pre-modern. The boundary separating the two is the standardised enterprise system. Modern practice logics are the 'best practices' that are associated after the re-configuring of the ERP from a centralised system to a decentralised e-government service provider (Chapter 5, Section 5.3.3). They constitute an electronic means of service request and provisions, communications via email and record keeping using QIDS (see Chapter 7, Section 7.4). The

modern modes of operation are usually captured in the ‘staging’ performances as presented in the analysis chapter (Chapter 8). The pre-modern practice logics are the administrative actions prior to the transformation of the ERP. They include paperwork, signature, local legacy systems and calling/visiting HRB staff (Chapter 7). These pre-modern sociomaterial assemblages are involved in the ‘being staged’ performances for public service delivery (Chapter 8). Both modern and pre-modern performances are not only co-existing in tension, but are intrinsically necessary for realising the e-government service using standardised ERP technology in Bahrain through their imbrication. Table 9.1 highlights what constitutes to be modern and pre-modern practices as well as their subsequent imbrication to enact the standardised system.

Modes of Operation	**Modern**	**Pre-modern**	**Imbrication Reconfiguration of Modern and Pre-modern**
Compromises of	- Centralised Standardised ERP system: Horison. - Pre-dominantly electronic workflows. - Dis-intermediation of HR personnel.	- Patchwork of internal legacy systems. - Paperwork requiring signature. - HR staff to facilitate public service delivery.	The centralised system is enacted along with an amalgamation of the social and material such as legacy systems, paperwork and HR personnel.
Public Service Delivery	'Sawaseya' - standardising provision of public service on a first-come-first-serve basis electronically and uniformly.	Street-level bureaucracy - addressing each case according to public officials' discretion.	Application of 'Rooh Al Qanoon' - Treating all cases uniformly by default, unless defined situation changes require re-intermediation and personalisation.
Communication Channels	Electronic-based communication to the appointed liaison in the ministry.	Directly contacting specific HRB officials. Formal correspondence through official letters.	Electronic-based contact with the HRB, followed by contacting an 'insider' using Wasta to prioritise cases requiring urgency.
Quality Assurance	Electronic-based recording and tracking of public services provided for decision making and performance appraisal purposes.	Quality assurance is patchy and reliant on paper appraisals and/or informally through social connections.	Quality assurance using QIDS for tracking and appraisal but also renders the informal Wasta practices invisible and more potent for accountability in abuse of the system.

Table 9.1 The pre-modern and modern modes of operating public services and their subsequent imbrication as a consequence of the standardised technology government transformation

First, the modernisation ways of the standardised system cannot displace and replace the practice logics that are inherent in local contextualised situations of Bahrain (Wagner et al., 2010, 2006). The e-government initiative aims to bring forth a modernisation of administrative processes through ICT-based standardisation of Bahrain's administrative processing (Introna et al., 2009). The implicit agenda is to challenge what is considered to be inconsistent and inefficient practices endemic in the public sector's doing. However, what emerged from this study is that the e-government initiative did not suffice in radically altering the ways in which public services delivery are conducted in Bahrain (Chapter 7). Indeed, the historically-rooted administrative practices become re-constituted into the enactment of the modern standardised system formally (through the reconstitution of the materiality of signature to the technology) or informally (having the standardised technology to be a platform for enacting sociomaterial capital of Wasta).

So what is accounted to be pre-modern elements – be it the paper forms, the signature, the informal visits, the duplicate systems, the Wasta – happen to be indispensable for the 'IT standardisation' to take place. In some sense, these premodern assemblages are deemed essential in the pursuit of "delivering individual justice, [which] will get lost in the transition from analogue to digital policy implementation" (Bovens & Zouridis, 2002, p. 182). Arbitrariness on the part of the human performers is considered to be an integral part of the delivery of public services in Bahrain. This is especially the case given that no meticulously designed technology artefact can account for all possible scenarios (Suchman, 1987, 2007). So the standardised national ERP is enacted not by simply succumbing to its formally espoused 'best practices', but also through the involvement of other pre-modern practices. For example, the system is perceived not to provide a sufficient accountability mechanism. Hence, Wasta as well as the signature are constitutive in the workflow in order to realise the system's objectives of accountability. This is to say that culture is not a means to disrupt the implementation of standardised technology but can be a mechanism to realise its objectives.

The second point of the imbrication is that formalised modern standards (that the national ERP is associated with) serve not only as a platform to scaffold pre-modern practices, but also somehow allow those primordial administrative practices to

flourish. This argument is supported by three points: First, the meticulous, almost baroque obsession, accountability and transparency of the formalised processes render the indigenous practice of Wasta to be invisible, yet more potent in practice. Indeed, the outcomes are a form re-personalisation of public service delivery through Wasta and also receiving “special and unique services” (Goffman, 1959, p. 138). Second, the standardised system is implicated to legitimise the non-standard sociomaterial intermediaries to be necessary for the proper functioning of public administration. This was demonstrated in the previous chapter (8.2.3) where the ministries enact the standardised system to justify their social and material arrangement to be necessary in public service delivery. Third, the standardised technology artefact provides a medium for the sociomaterial capital practice of Wasta to foster in accountability and self-disciplinary environment in the e-government public service delivery (Section 9.3). These innovative ways of Wasta are not possible without the implementation of the modernising standardised system.

The third and last point argues that it is only through the imbrication of the seemingly conflicting modern ‘best practices’ of public administration along with the pre-modern primordial practices that the national ERP can be realised in Bahrain’s setting. We should not expect to see concrete situations where sociomaterial performances are purely performed through modern or pre-modern practice logics. Each informs the other directly or indirectly contextually. This is similar to the notion of the imbrication of stages, where the back and front stage are made meaningful through thier relation to each other (Goffman, 1959). It is through a Goffmanesque dramaturgical practice analysis that enables us to uncover the ways in which the modern and pre-modern practices ensure the accomplishment of the standardised ERP’s “front-stage slickness and backstage complexities, difficulties, or bad passages" (Moser & Law, 1999, p. 207).

It is tempting to see that the modern and the pre-modern practice logics to enact a standardised technology across government departments to create chaotic public service delivery. This study argues the contrary; it is actually the paradoxical interdependence and inseparability of the seemingly conflicting modern and pre-modern performances that essentially accomplished the national ERP system. As posited previously, the emergent practice – modern through seamless electronic

service provision or pre-modern in circumventing this through face-to-face negotiation – is governed largely by the current audience. The discussion in section 9.2 of this chapter advocates the significance of audience-mediation in defining the situation and hence the enactment of the IT standardisation. It is this *ongoing appeasement of various audiences* that renders both modern and pre-modern practice logics to manifest in accordance with the currently defined situation. The centrality of the audience in defining the context necessitates the elements of both the pre-modern and modern to be relevant and constantly renegotiated in the accomplishment of the standardised ERP technology.

A pertinent question to ask is when are pre-modern modes of operating in the public sector more prominent, while in others scenarios the formalised modern modes of operation are more apparent? One way to address this question is that the imbricated relationship of the pre-modern and the modern is based on the contextualised situation. For example, the HRB officials handle many requests in the formal routine fashion, but at times they are accompanied by follow-ups from higher up in the organisation through Wasta. In this example, a shift happens from the modern mode of operation to the pre-modern in the delivery of public services (Section 7.4). Once resolved, the public official shifts back to the default formal procedures of operation through the modern electronic means. What this tells us is that, at times, one mode of operation might seem to be more dominant in its reconfiguration or occurs more frequently. But what is imperative here is that both are necessary for making the standardised system work. In this vignette, the pre-modern ways, even if they are less dominant in everyday work, still provide an alternative approach for the provision of public services. Besides, it is this modernity through standardisation of public services that re-configures pre-modern behind-the-scenes channels to be more effective when the default standard ways fail. In any case, both the pre-modern and modern are imbricated through continuous renegotiation that is contingent on the situated context of the e-government service delivery.

To summarise the argument of this discussion section, it is the imbrication of the modern and the pre-modern to be conditions of each other that is fundamental to understanding the accomplishment of the standardised technology. Without the reconfiguration of the pre-ordained modern methods of standardisation with the pre-

modern context sensitive norms, the national ERP cannot operate across government departments in Bahrain. The argument is that they not just co-exist but rather necessitate the other to occur in practice. Moreover, as repeatedly contended in this research, the standardised technology is not static but is constantly being reconfigured in situ. The argument here develops this by postulating that the imbricated co-dependence of the pre-modern and modern practices accomplishes the standardised technology's reconfiguration in situ.

This notion of imbrication of the modern and pre-modern practice logics to be necessary to the accomplishment of the standardised technology does have some insights to contribute towards the literature associated with achieving modernity in government through ICT-mediated means.

One is that the imbrication of the modern and pre-modern ways for the pursuit of the ICT-based transformation of public administration in Bahrain questions the promised efficiency gains of standardised technology. This statement somehow challenges optimistic IS studies that proclaim that efficiency is the clearest benefit reaped from e-government transformation (Cordella & Tempini, 2015; Danziger & Andersen, 2002). Indeed, as with other ICT-based modernisation efforts in Arab countries (Atiyyah, 1988), there is hardly any noticeable reduction even in clerical jobs as a result of the ICT-based reform. What emerged is not achieving downsizing as result of e-government initiative in early stages (Moon, 2002) nor in its late stages. On the contrary, in fact, HRB employees increased gradually over the years to address the increasing demands of civil servants and technology. Some HRB officials even have to work after hours and weekends to compensate.

Therefore, instead of efficiency gains as a result of transforming the standardised ERP, the imbrication notion of its enactment suggests a drive for stability instead. These ongoing demands to appease various audiences in different settings have offset the efficiency gains possibly achieved in the e-government transformation move (Fountain, 2001a). However, "audience segregation" (Goffman, 1959, p. 57) in service delivery entails various performances necessary for the standardisation to function in Bahrain. Hence, what is a consequence of the implementing of the national ERP is not one of efficiency gain, but of stability in maintaining favourable impressions as a response to the arising situations (da Cunha, 2013). So in addition to

the actual work in public service delivery, public officials are involved in 'make-work' performances (Goffman, 1959, p. 112) that aim to appease the audience-defined situation. The performances can constitute modern, pre-modern or an amalgamation of both. In any case, the imbrication notion suggests that the outcome of the implementation of standardised technology is one of stability in performances than that of productivity gains.

The second possible contribution of the imbrication notion of the modern and pre-modern in Bahrain is with regard to the '*intensification*' of bureaucracy in the pursuit of post-bureaucracy through ICT means. Indeed, the pre-modern modes of operation – signature, legacy systems and paperwork – are profound in reinforcing the bureaucratic practices in the ICT-based modernisation process for electronic public services delivery in Bahrain. So despite the rhetoric of e-government reform through the decentralisation of public service services in Bahrain (Chapter 5.2.2), the standardised ERP system is enacted to be a centralising bureaucratic artefact. In ministries, the HR directorates still more or less maintain their own internal workings, but are reconfigured to perform to additional audiences i.e., the HRB and their standardised system, hence adding to bureaucratic layers. Moreover, enhancing accessibility of the centralised system through electronic means served actually to extend the bureaucratic reach of the HRB to all government employees in real-time (Hayes & Walsham, 2000). Besides, competitiveness, transparency and contracting out which are hallmarks of e-government transformation were not observed (Fountain, 2001a; Khalil, 2011). So in essence Bahrain's e-government experiment does not render principles of Weberian governance obsolete, but also act as an enforcer of bureaucracy (Drechsler, 2009, p. 14). Nevertheless, Bahrain's government continues to sell its e-government transformation of re-bureaucratisation as one of decentralisation and electronic self-service (Hodgson, 2004). Re-bureaucratisation here indicates the Weberian ideals in terms of impersonality and homogeneity of practices as well as the bureaucratic layers of checks and balances. In essence, the imbrication of the pre-modern and modern modes of operating the standardised system served to intensify bureaucracy through ICT means. This concurs with the argument of Cordella (2007) who postulates that 'e-bureaucracy' is a more suitable substitute to e-government transformation by invoking post-bureaucratic ICT means.

Furthermore, the imbrication of pre-modern and modern performances to accomplish the standardised system in Bahrain puts to question the seemingly linear transition from bureaucratic to ICT-mediated, post-bureaucratic public administration (Danziger & Andersen, 2002; Layne & Lee, 2001; Moon, 2002). Irrespective of the diffusion of ICT tools embraced, elements of traditional bureaucratic operations find a way to be reintegrated into the post-bureaucratic operations (Clegg & Courpasson, 2004; Hoggett, 1996; Kallinikos, 2004a). What has emerged in this thesis is that the pre-modern bureaucratic modes found their way into the modern post-bureaucratic electronic modes of operations (Chapter 7). As demonstrated in the findings, the ministries' vary in their appropriations of the standardised self-service e-government services attests to this statement (Table 7.1). For instance, the signature re-inserts public officials in the public e-service delivery. This is in line with the recent e-government literature that confirms that elements of traditional bureaucratic practices are not displaced, but are renegotiated into the post-bureaucratic reformation of government (Bloomfield & Hayes, 2009; Hayes et al., 2014; Introna et al., 2009). Moreover, this argument is in contrast to the assumption that the ICT-mediated public transformation is in direct contestation with the bureaucratic ways (Cordella & Tempini, 2015; Cordella, 2007; Bovens & Zouridis, 2002) until one prevails over the other in time. This statement is more in line with the view that technology provides the means for the imbrication of bureaucratic and post-bureaucratic logics in ICT-mediated government transformation (Hayes et al., 2014). However, this research differentiates in some subtle ways from Hayes et al. (2014) which this discussion draws inspiration from, including the term imbrication.

To crystalize this study's contribution to the notion of imbrication in public service delivery, it is apt to articulate how this study differentiates and builds on Hayes et al. (2014). The first difference lies with what is being imbricated. Hayes et al. (2014) draw on institutional logics to explain how two seemingly opposite public administration logics – bureaucratic and customer-centric – are imbricated through ICT means in the Greek government. In contrast, in this study, the imbrication is about old and new ways of public service delivery that are demarcated by the implementation of the national ERP system in the Bahrain government. As established in the previous paragraph, the bureaucracy in Bahrain has emerged to be a more intensified form of e-bureaucracy (Cordella, 2007) following implementation of

standardised technology. Instead, the imbrication in this research is between the sociomaterial assemblages and performances involved in the public service delivery (See Table 9.1). The standardised ERP and its associated 'best practices' separates the pre-modern and modern elements as it is meant to modernise public administration by eliminating and/or transforming old ways of paperwork correspondence and processing, drop-ins, informal Wasta connections and so forth.

The second subtle difference is with regard to the relationship of standardisation and technology. For Hayes et al. (2014), standardisation is intuitively associated with the customer-centric institutional logic. They observed that a condition for achieving the standardisation of the new institutional customer centric logic to be realised is by referring to a standard 'code of practice'. This 'code of practice' belongs to the bureaucratic logic and is imbricated with customer-centric logic in order to process public services. The technology role is observed to be both the condition and the outcome of the standardisation process (Hayes et al., 2014, p. 133). Similarly, this research concurs strongly with this relationship where the technology is the reason and result of standardisation.

However, this research builds on this argument by positing that the technology – at least in Bahrain's government – is accomplished through particular sociomaterial dramaturgical performances. What is constituted to be the standardised practice in enacting the technology is *dramaturgically staged* to be so. Hence, what is standard is not residing within an institutional logic per se, but is dramaturgically emergent as a consequence of social and material assemblages. These assemblages are constituted from both the pre-modern and modern modes of operations. E.g. in the MoA, the standard is to have paper forms to supplement the centralised system. On the other hand, the MoB standard mode of operating the centralised technology is by backstaging it while frontstaging their in-house HR system. This conceptualising of standardisation and technology is a more processual take on their unfolding in the practice of public service delivery (Tsoukas & Chia, 2002). In so doing, the pre-modern and modern are made more configurable to articulate how their imbrication takes place to enact IT standardisation in situ.

Finally, the third contribution this research makes is with regard to the role the materiality of the signature has in realising the ICT-based transformation of the public

sector. In fact, the narrative of the signature serves to capture the imbrication notions of pre-modern and modern practices amiably. More specifically, the signature – which is a pre-modern public administrative practice – has re-configured itself to be a necessary condition for the e-government services delivery. First, the signature is associated with certain social actors that are re-intermediated to the e-government service delivery in Bahrain. As previously indicated, this re-intermediation of certain participants threatens the efficiency promise of disintermediation in e-government transformation (Danziger & Andersen, 2002; Fountain, 2001a; Moon, 2002). Second, these human actors associated with signature are deemed essential for personalising public service delivery. The inclusion of the human element to the modernised electronic-based public service serves to provide street-level bureaucratic discretion (Lipsky, 1980). This is in contrast to studies which discovered that the human elements are virtually eliminated so as to eradicate any sort of biases in the public service delivery (Bovens & Zouridis, 2002; Kim et al., 2009). Third, the signature on paper serves to dramatise and materialise the performances of e-government services. To put it in Goffman's words, the signature serves in a way to provide the means to "make an effective showing" (Goffman, 1959, p. 43) of the e-government service. This finding correlates with other studies that discovered that paper augments the system functions (Al-Hejin, 2013; Hanseth et al., 2006; Jones, 2014), but also adds that the paper is performatively made significant by the act of signing. Hence, the practice of signature, which is a remnant of Bahrain's bureaucratic pre-modern ways, found its way to be included in the 'Age of Information' e-government transformation. So ironically, the signature is necessary to enact the paperless e-government service delivery in Bahrain.

In conclusion, what emerged from this study is that the e-government initiative did not suffice in radically altering the ways in which public services delivery are conducted in Bahrain. Unless there is a drastic change to the historically rooted patriarchal mentality of Bahrain's public sector, it is difficult to anticipate their complete displacement with alternative modes of operations. Indeed, a drastic change can threaten the status quo of the hierarchical stability of Bahrain's government. The introduction of an intrusive and standardised technology does not foster in a new reformed era of modernity in Bahrain, but rather serves to be another front to be taken into account in public administration. In essence, national standardisation technology

is not a means to an end but an end in itself. This is to argue that in Bahrain ICT standardisation for the sake of efficiency is not the primary motive, as say, having the formalised system to foster the impression of stability, fairness, and modernity, where all Bahrainis operate under the same overarching standard system. Yes, such a system might result in imperfections in its appropriations. Nevertheless, it serves the integral purpose of facilitating social stability and modernity to Bahrain's society to the international community in general.

This study is not about the degree of success or failure of the ERP to foster in standardisation. Nor does it present steps to achieve such objectives. Instead, this research provides some insights into how the traditional sociohistorical and sociocultural pre-modern practices endemic in Bahrain's public sector are not displaced but get folded into the formalised practices. On the other hand, this study also demonstrates how the formalised 'best practices' of the system support those non-standardised historically-rooted work practices in the provision of public services. This is not to say that changes cannot happen. It is rather to emphasise that modernisation attempts through the standardised technology cannot impose their own 'best practices' logic on the localised enactment without being renegotiated, reconfigured and imbricated in its enactment. To end this section, it is apt to do so with a quote by Foucault which encapsulates Bahrain's e-government initiative case: "… whatever the project of reform, we know that it will be swamped, digested by modes of behaviour and institutions that will always be the same" (Foucault, 1980, p. 156).

9.5. Summary

This chapter discussed the implications of this thesis on the IS literature in general, and on IT standardisation more specifically. The first discussion section elaborated how the accomplishment of the standardised technology is performed in accordance with audience-mediated situations. The next section contended for the centrality of sociomaterial capital in the enactment of the standardised system in Bahrain. The final section argued that it is through imbrication of pre-modern and modern practice logics that the standardised technology is enacted to deliver e-government services.

10 Conclusion

10.1. Introduction

There is a drive among governments of the world to modernise their public service delivery through the use of modern technology. Bahrain's government is no different with many of its ICT investments geared towards implementation of standardised technologies. This includes an ERP nationally imposed across the public sector. The objective is to achieve efficiency through economies of scale and the streamlining of administrative processes. Indeed, modernisation and technologies of standardisation go hand in hand (Henman & Dean, 2010; Introna et al., 2009). The standardisation through technology is useful in minimizing human negligence by automating processes of public services delivery (Bovens & Zouridis, 2002). Besides, standards inscribed within technology are considered to be tried-and-tested organisational templates representative of an industry's 'best practices' (Wagner et al., 2006).

In spite of this, IS literature has consistently demonstrated that implementing standard ERP is fraught with problems in its implementation and use. The problems involve technical, organisational and even political issues (Dwivedi et al., 2015). Such problems are more obvious in developing countries where local requirements are not fully accounted for by the technology's designers (Heeks, 2002). However, most of the studies are focused on the factors that may support or hamper the adoption of standard technology in a non-western context (Shoib & Jones, 2003; Walsham & Sahay, 2006).

Moreover, the studies conducted in a non-western context do not highlight the specificities of the local environment where the technology is adopted (Davison & Martinsons, 2016; Leidner & Kayworth, 2006). However, growing number of studies which are more sensitive to local conditions have gained currency in recent literature (Avgerou, 2008; Bada, 2002; Berente et al., 2016; Bertels et al., 2016). Nevertheless, there is virtually no study that provides an in-depth empirical investigation on the practices involved in working out the standardised technology within the context of a Bahraini setting. This comes despite the consensus in IS literature that implementing a vast national ERP, such as in Bahrain, is a risky venture and is bound to fail (Hanseth et al., 2006). My research has aimed to explore the practices associated with the enactment of a centralised ERP across Bahrain's public sector with the objective of reforming public services delivery through electronic means.

10.2. Revisiting Research Questions

This research was concerned with the practices involved in working of the technology of standardisation in Bahrain's government. The central theme was to understand the accomplishment of the enterprise system across Bahrain's governmental departments. With this focus in mind, the following research question was proposed:

RQ1 – In what ways are the practices being (re)configured to enact and perform a standardised pan-governmental enterprise system as part of Bahrain's modernisation drive to provide e-government services?

The above research question is informed by a sociomaterial Goffamensque take in understanding the workings of enterprise systems in Bahrain. The 'standardised technology' in Bahrain is enacted through particular sociomaterial dramaturgical performances. These performances can only be ascertained through the current intra-actions of its sociomaterial participants. In other words, the practices involved in working out the standardised technology can only be understood in light of the currently-defined context of providing e-government services. Moreover, the sociomaterial performances emerging from enacting the standardised technology have performative implications to the participants of the performance, including the

standardised system. As a consequence of the current performances, the standardised technology assumes various dramaturgical roles (as discussed in chapter 8). Hence, the shaping and reshaping of the standardised technology is not done technically to its algorithm codes (as described in chapter 5), but rather through sociomaterial performances of the participants. This is to say that the standardised technology enacted in different departments is not due to different versions of the technology, but through sociomaterial performances that enact the technology to be dominant or not in public services delivery (as discussed in chapter 8). This line of argument can be developed further through addressing the second research question:

RQ2 – In what ways are the Bahrain's local informal practices being (re)configured through situation-specific social and material arrangements in the enactment and performance of the formal national enterprise system?

The configuration and reconfiguration of the practices was intimately related to both formal, standard modes of operation as well as informal pre-implementation ways. The modern, formal and standard ways of providing government services in Bahrain has not overcome the indigenous pre-system implementation practices. Indeed, the social and material arrangements of the other HR systems and paperwork were reconfigured to be indispensable from the standard ways of e-government services delivery through the standardised central ERP. This is not to say that they co-exist harmoniously or in contestation per se, but rather the social and material arrangements are entangled and thus both the old and the new are conditions of the existence of one another. This entanglement is especially important given that public officials tend to 'stage' modernity and progressiveness while ensuring that local needs and obligations are 'being staged' also. This cannot happen without having both the standardised technology and its associated formal best practices to work in unison with the local practices in the public service delivery. The empirical findings about these practices were presented in chapters 6 and 7. Subsequently, chapter 8 analysed and discussed how those social and material arrangements are significant as they serve to maintain dramaturgical impressions to various audiences.

10.3. Findings and Contributions

This research is distinct from other IS studies in three respects. One is that it fuses Goffman's dramaturgical analysis with the agential realism's sociomaterial take. This resulted in a sociomaterial dramaturgical analytical framework that productive in understanding technology use. This framework provided the conceptual tools to elucidate the intrinsic practices that enact the standardised national ERP in Bahrain.

There is no denying that there is a renewed interest in Goffman's work within the IS discipline (Hogan, 2010). However, most of the studies which draw on Goffman in IS literature take their stand from a socio-technical position (Pinch, 2010). There are only a handful of studies that do see the purchase Goffman's dramaturgical lens contribute to IS understanding by assuming a sociomaterial position. However, these studies take Leonardi's critical realist position of sociomateriality which argues that the system's affordance and constraints is attributed to technology's materiality (Barley, 2015; da Cunha & Carugati, 2011; Marabelli et al., 2016). What is not achieved is an empirically-focused research that re-conceptualises Goffman's dramaturgical analysis through a sociomaterial position (Hafermalz et al., 2016). This study demonstrated that the findings empirical case study can be explained by drawing on agential realism's position of sociomateriality using performativity notions (Barad, 2007; Orlikowski & Scott, 2008) along with Goffman's dramaturgical analysis to explain standardised technology use.

The second contribution of this thesis is the concept of sociomaterial capital to understand technologies of standardisation. Through a sociomaterial dramaturgical analysis, engaging with the local cultural phenomena of Wasta as a sociomaterial capital is productive understanding the enactment and performance of the standardised technology. This contribution is threefold in its proposition. First, in term of theoretical contribution, it indicates that the sociomaterial capital of Wasta is a form of practice that only comes into existence through sociomaterial intra-actions. It is not in the Bourdieuian sense of social capital where Wasta is attributed to individuals or social groups (Bourdieu, 1985; Coleman, 1988). Secondly, by considering Wasta as a sociomaterial capital, we are able to disentangle it from being socially exclusive. What

is argued here is that we should not foreground the role of materiality along to force a general symmetry with social aspects of Wasta (Doolin & Lowe, 2002; Hanseth et al., 2001; McMaster & Wastell, 2005); but rather to point out that both the social and material elements are co-constitutive of the practices that enact them (Doolin & McLeod, 2012; Introna, 2016; Orlikowski & Scott, 2008). Indeed, engaging Wasta as a sociomaterial capital can be productive in understanding its performative implications to all the participants (social and material) involved in its enactment, including the standardised technology. Third, sociomaterial conceptualising of Wasta has some points to talk back to the IS literature. Many studies look at Wasta to be a cultural aspect of Arab regions which impede the modernisation of governments (Al-Saleh, 2016; Jabbra & Jabbra, 2005; Jreisat, 2009; Mohamed & Hamdy, 2008). The few studies which examined Wasta relationship with technology also expressed their concern about its negative implications (Fidler et al., 2011; Kanaan, 2009). This research stands out from these studies by providing a more dynamic picture of how Wasta engages with technology in practice. Rather than concluding that Wasta is good or bad for the implementation of technology, this research posits the issue is dependent on the context of its enactment. It can be a mode of operation to obtain entitlements which cannot be obtained due to maladministration or technicalities (AlQahtani, 2013). On the other hand, it can be the means to receive preferential treatment in public administration (Al-Saleh, 2016; Loewe et al., 2009). What matters here is that looking at Wasta as a sociomaterial practice can inform us of its implications in milieu as well as its dynamic relationship with technology use.

Finally, the analysis reconceptualises the notion of imbrication as instrumental to the accomplishment of the vast standardised enterprise system for e-government services delivery in Bahrain. In brief, imbrication here is about the formalised standardised ERP is not only supported by the pre-modern local practices, but also scaffolds those local pre-modern practices. The literature has consistently identified innovative workaround and improvisations to make the implemented technology work (Boudreau & Robey, 2005; Ciborra, 1999; Manning, 1996; Orlikowski, 1996, 2000). These workarounds have their roots in the practices of the pre-implementation periods (Robey, Boudreau, et al., 2002). This thesis supports these findings. Furthermore, this research attempts to extend the argument further by positing that formal modern technology provides the means to reconfigure the old ways to be folded into its

accomplishment. The argument here is that they not only co-exist but rather one necessitates the existence of the other in practice. For example, the materiality of the signature – which is a pre-modern public administrative practice – has re-configured itself to be a necessary condition for the e-government services delivery. It does so formally – by archiving the paper signature to centralised system within the HRB – as well as informally – in the filling out of forms within ministries (See chapter 7). Additionally, the pre-modern cultural practices of exercising *'Rooh AlQanoon'* (or Spirit of the law) emerged to be a significant factor in personalising and humanising the modern e-government transactions. Ironically, the impersonalisation through IT standardisation has entailed the justification for the pre-modern 'Rooh AlQanoon' to foster in the modern everyday work. Also the looming shadow of 'Wasta' acts as a self-disciplinary mechanism of accountability in addition to the formal accountability in place through ICT means.

This imbrication of the old and the new modes of operations challenges the efficiency gains expected from an e-government transformation (Danziger & Andersen, 2002; Fountain, 2001a; Moon, 2002). However, without the reconfiguration of the ICT-based modern methods of standardisation with the pre-modern context sensitive norms, the national ERP *cannot* operate across government departments in Bahrain. Moreover, the imbrication notion is apt as it entails that the formal modern modes of operations not only co-exist with the pre-modern ways, but actually strengthen their legitimacy to be indispensable in e-government provisions in Bahrain. This is in contrast to other public sector transformation studies which observe that human elements are gradually eliminated in the public service delivery (Bovens & Zouridis, 2002; Kim et al., 2009). Therefore, rather than displacing the pre-modern public administration, ICT-based transformation actually legitimises and imbricates those practices along with the modern standard ways of operation.

Moreover, a point worth mentioning is that this research is situated within a small intersection of literature domains, which makes it unique in its own way. This is demonstrated in three points. One, it is one of the few research endeavours which looks to the in-depth local practices of working with technology in Bahrain. The empirical studies conducted within a Bahraini setting usually adopt functional and managerial models for implementing technology (Kamhawi, 2007, 2008; Kamhawi &

Gunasekaran, 2009) and suggest normative steps to assess and guide the implementation of e-government projects (Ebrahim, 2005; Ebrahim & Irani, 2005). There is hardly any practice-based IS study which examines Bahraini socio-historical nuances that shape and reshape technology use. Secondly, there is a lack of literature which examines the role played by large-scale ERP in the workings of e-government (Wagner & Antonucci, 2009). The available IS research generally focuses on either e-government technologies in general, or enterprise systems working within organisations. However, such research does not overlap these two literature domains to investigate the role of ERP in its reconfiguration so as to provide e-government services. Lastly, the majority of e-government literature is focused on the process of G2C e-government services provision. In contrast, G2E e-services, on which this research is based, has received little attention in the e-government literature (Ndou, 2004). The point here is not only to frame the position of this research within the IS literature as a worthwhile contribution to knowledge per se, but to highlight the niche situatedness of this study within the IS literature in general.

In addition the overarching research question of accomplishing national ERP in Bahrain is theoretically interesting, it is also practically relevant. What this case study provides is an in-depth take on the local specificities that are instrumental in understanding how the same enterprise system has a contrasting role in different situations. This attention to detail has received little attention in IS studies on the region which focus instead on generic factors and conditions that might affect the implementation and use of the standardised technology. It is this foregrounding of the situated and contextualised work practices which helps to unravel some of the uncertainty associated with adoption of such large and complex system in Bahrain.

Therefore, this research can be useful to practitioners and vendors in their endeavour to implement new technologies in the Middle East generally and Bahrain in particular. This research is not a narrative of a technology implementation success story, nor is it a failure account either. What this study provides are insights into intrinsic ways which emerge from the appropriation of the standardised technology in Bahrain. For examples, significance of the signature in the formal approval of public transaction as well as the informal practices that occurs in the background. So even if the ERP technology is technically sound, it will be appropriated in ways unanticipated. This is

not to say that the designers should not strive to fulfil the user requirements as intended. Instead, this research is more of a clarion call to the professionals to be proactively aware of such emergent practices that are both local and historically and culturally informed. Therefore, practitioners of technology should at the very least be aware of (if not attentive to) the occurrences of these specific contextual phenomena in the implementation of standardised technology in Bahrain specifically and the Middle East more generally.

10.4. Limitations of this Research

The limitations of this research are related on one hand to the theoretical framework and, on the other, to methodological and practical constraints.

Language is probably the most prominent challenge of undertaking a sociomaterial analytical analysis of the empirical findings. Despite emphasising the relational ontological assumptions in approaching this empirical study, I found myself repeatedly reverting to the bifurcation of entities in the presentation of the case findings. This challenge is also experienced by other IS researchers who draw on sociomateriality (Scott & Orlikowski, 2014; Wagner et al., 2010). Indeed, sociomaterial articulation of practice is a challenge in staying true to the processual and entangled nature of the world (Introna, 2013). Moreover, this research limitation also includes not providing the means to resolve the language dilemma in reconciling the sociomaterial entangled ontological assumptions along with Goffman's actor centric positioning. Nevertheless, these challenges should not preclude us from drawing on its conceptual tools to derive insights into such findings as this research has yielded. Indeed, the performativity notion of sociomateriality can make us sensitive to the nuances of enactment of a standardised system and provides the vocabulary to conceptualise the unfolding of such sociomaterial practices (Doolin & McLeod, 2012). More particularly, the sociomaterial spin to Goffman's dramaturgical analysis informs us the different ways in which standardised system in enacted and performed in varying situations.

There are two methodological and practical limitations worth mentioning in this section. The first methodological weakness of this study is temporal. The fieldwork did not cover the crucial liminal period following the introduction of the national ERP. By the time I have embarked on my fieldwork, the national ERP has been established for more than a decade. Thus neither the early issues that typically arise at the beginning nor the later developmental issues have been observed first-hand. To alleviate this shortcoming to some degree, I have targeted the senior civil servants who had first-hand experience in engaging with ERP development and subsequent transformation over the years. The phases that the national ERP has undergone are chronicled in the background chapter (chapter 5). Nevertheless, these historical accounts from secondary sources are not as robust as collecting data directly from the participants as they work out the newly introduced technology. Moreover, this research covers only a limited slice in time. The practices that enact and perform the standardised system continue to be reconfigured over time. The last time my fieldwork was conducted was in August 2015.

Secondly, another shortcoming of this research is with regards to the empirical data gathered for analysis. Despite generating a wealth of primary data, it remains that they are generated only from two government departments (plus the HRB). There are 36 other government bodies in Bahrain which are subject to the Civil Service Law and subsequently its centralised system. It is unfeasible to conduct a comprehensive in-depth research of the practices that work out the system in all departments. Moreover, there are functionalities of the system which are mentioned but not covered in depth. The reasons for this are due to the scope and space constraints. However, the themes reported in this research cuts across the findings in other functions of the system.

A limitation of this research is with regards to the research focus of understanding the accomplishment of the national ERP in Bahrain. It does not provide an evaluation of the success or failure of the enterprise system. Nor does this case study compare the degree of its success or failure between the two user groups. Instead, this research is more interested in developing a theoretical understanding of the ways the system is enacted in various situations. Besides, as a consequence of the theoretical analysis of the findings, success or failure of the enterprise system is a performative enactment due to sociomaterial performances (Cecez-Kecmanovic, Kautz, et al., 2014). This

analysis questions the validity of evaluation models for success assessment. This, however, can be frustrating to practitioners who want a straightforward answer to the question of whether the system has succeeded or not.

10.5. Future Research

This research has attempted to investigate how national standardised technology works in Bahrain. In so doing, it has raised more questions and possible opportunities for future research.

As indicated in the previous section, the research boundary is limited to the workings of some government departments' practices in Bahrain, and only focuses on some of the functions of the ERP. Questions arise as to how such findings and analysis apply to other government departments. Besides, do similar analytical themes emerge when engaging with other functions of the enterprise system such as performance appraisals, payroll processing, or time attendance systems? Also, what about the practices involved in the workings of other Bahraini national enterprise systems, such as the Ministry of Finance or Pension Fund Oracle systems? How similar or different are the dramaturgical practices that emerge to perform technology as it happens in the private sector? All these research suggestions emanate from this case study and can have intriguing findings.

Although the case study is conducted in Bahrain, the applicability of the sociomaterial Goffmanesque analysis of the emerged practices in accomplishing standardised technology goes beyond the geographic confines of the case study. The proposed theoretical framework which synergies Goffman and agential realism can equip future researchers with conceptual tools to make sense of practice-based IS studies. This can reveal interesting insights when analysing practices in different settings. For example, how are technologies worked out in other Asian countries which similarly have a separate government body for civil services administration (Moon & Hwang, 2013)? How are practices re-configured to transform such civil servants services to be performed as e-government services? As I have often indicated in this thesis, the sociomaterial performances are contingent on the currently defined situation. This analysis can provide insights on the performative implications of engaging with

technology on all who are constitutive of its enactment, including the technology itself.

Lastly, the sociocultural practice of Wasta is by no means exclusive to a Bahraini setting. As indicated in the literature review, it has been observed all over the Arab region (section 2.5.2). This study demonstrates how it is instrumental for accounting of the interplay of work, technology and organisation in Bahrain. The findings of this thesis might be applicable to similar public settings within the Gulf countries. However, I do stress caution to allow Bahrain's case to be a proxy or representative of how technology is enacted within culturally homogeneous societies. As argued in this thesis, Wasta is not a characteristic of individuals or society but is a practice made meaningful in its enactment in action. So the question remains of how the practice of Wasta works out in other settings. Further studies should investigate how the Wasta practice is performed in relation to technology transformation in other settings. In other words, this study gives its voice to other calls of researchers who seriously take into account the indigenous practices of a society in studying technology (Davison & Martinsons, 2016, p. 342) as well as modernisation of public administration (Jabbra & Dwivedi, 2004).

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12 Appendices

LANCASTER UNIVERSITY
Management School

Participation Information Sheet **01/7/2014**

Dear Participant,

This study intends to investigate how an ERP is enacted within the public sector of Bahrain. The research project is part of my PhD degree at the Lancaster University. The purpose of the study is for academic purposes only. The participants of this study are to be asked how the ERP in question affects their work practices.

Participation is entirely voluntary. Each interview conducted will take around 30 to 60 minutes. At any point in time, you may refrain from answering any question. You can do so without providing any reason. You can also stop the interview at any point. Non-participation will not cause any adverse effects or consequences to you or your organisation.

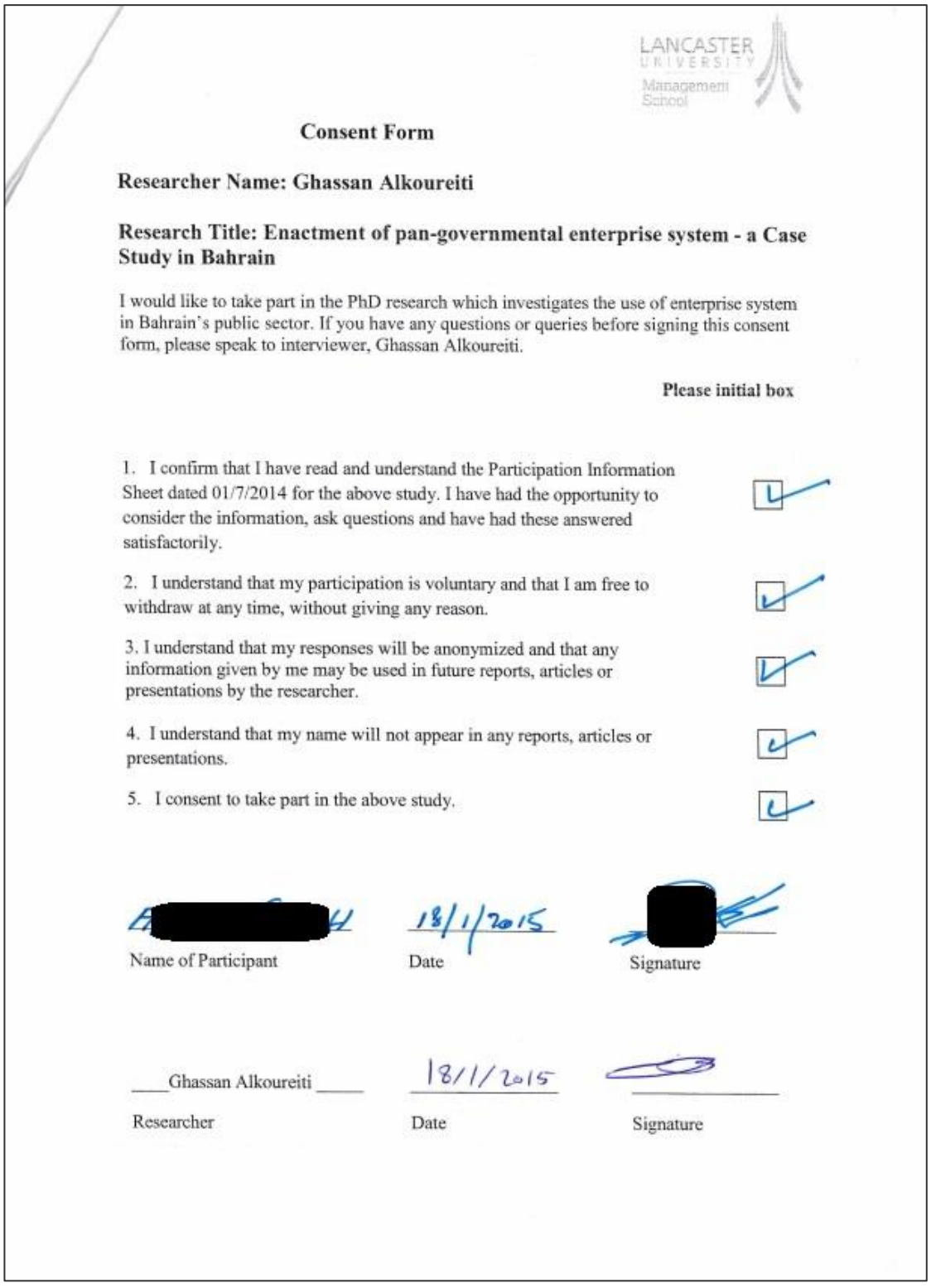
Your responses are completely anonymous and confidential. It will be recorded, transcribed and coded. They will not be handled by any individual within your organisation. The recordings will be transferred and stored securely in a password-protected and encrypted hard drive. This data will be accessed only by me or anyone who you explicitly consent to. You will be able to request the transcripts and erase any elements which you are uncomfortable with. You can also request for any data you provided to be deleted within 2 weeks after your participation, which will be erased and not used. After this point, your data will remain in the study. The responses provided may or may not be published in an academic paper.

The research is conducted by Ghassan Alkoureiti, a student in Lancaster University Management School and an employee of the University of Bahrain. This study has been approved by Lancaster University Research Ethics Committee. If you have any concerns or complaints about this project, please contact Dr Naill Hayes on +44 1524 510962 or by email n.hayes@lancaster.ac.uk.

Your cooperation will be highly appreciated. This study will extend the academic knowledge and your input will contribute to the overall betterment of Bahrain's public sector.

Sincerely Yours,
Ghassan Alkoureiti
PhD Candidate, Lancaster University
Research and Teaching Assistant, Bahrain University
g.alkoureiti@lancaster.ac.uk
Tel No: +973 39152233; +44 7899932931

Appendix 1: Participation Information Sheet



LANCASTER UNIVERSITY
Management School

Consent Form

Researcher Name: Ghassan Alkoureiti

Research Title: Enactment of pan-governmental enterprise system - a Case Study in Bahrain

I would like to take part in the PhD research which investigates the use of enterprise system in Bahrain's public sector. If you have any questions or queries before signing this consent form, please speak to interviewer, Ghassan Alkoureiti.

Please initial box

1. I confirm that I have read and understand the Participation Information Sheet dated 01/7/2014 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily. ☑
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☑
3. I understand that my responses will be anonymized and that any information given by me may be used in future reports, articles or presentations by the researcher. ☑
4. I understand that my name will not appear in any reports, articles or presentations. ☑
5. I consent to take part in the above study. ☑

[redacted]	18/1/2015	[redacted]
Name of Participant	Date	Signature
Ghassan Alkoureiti	18/1/2015	
Researcher	Date	Signature

Appendix 2: Consent Form