ENACTMENT OF PAN-GOVERNMENTAL ENTERPRISE SYSTEM THROUGH PERFORMATIVITY OF PRACTICES: A BAHRAINI CASE STUDY (14)

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THE ENACTMENT OF PAN-GOVERNMENTAL ENTERPRISE SYSTEM THROUGH PERFORMATIVITY OF PRACTICES: A BAHRAINI CASE STUDY

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Abstract

The purpose of this study is to understand how the informal localised practices of user groups (government ministries in Bahrain's public sector) are (re)enacted in the appropriation of a standardized enterprise system along with its associated preconceived 'best practices'. This research explores the practices revolving around a centralized pan-government Oracle HR enterprise system which has been deployed across Bahrain's public sector as its being re-configured to provide e-government G2E (government-to-employee) e-services. By analysing the data from sociomateriality's notion of performativity of practices, we will argue that the 'best practices' embodied within the centralized ERP did not gradually replace the local practices. But rather, the enterprise system is continuously being reconfigured and reinterpreted following its deployment to accommodate such locally situated practices. It is through the performative actions of the sociomaterial assemblages that involve the formal and the local practices that such a pan-governmental enterprise system can function within an IT-mediated public sector transformation in Bahrain.

Keywords: Enterprise System in Public Sector, IS Practice, E-Government Services, Government-to-Employee (G2E), Sociomateriality, Bahrain

1.0 Introduction

In the past decades many organisations of different industries introduced enterprise systems in their workplace in order to improve their business processes and services provided. Such systems incorporate certain preconceived 'best practices' that seek out to standardize their associated practices within the organisations they are implemented. However, undermining the historical-cultural situated practices can result in unaccounted for implications when introduced a non-western context (Davison, 2002; Soh et al., 2000). This is especially the case when introducing such a system to manage the human resources practices in the public sector of the Middle East, more specifically Bahrain. What is of interest here is how can a pan-governmental (pan here means across government departments) enterprise system which upholds certain

prescribed organisational 'best practices' to function in relation to local and contextualized practices, which has been engrained within government ministries. The research question is what are the practices involved in re-configuring a centralised enterprise system that spans across government departments to accommodate e-government services in Bahrain's public sector context. To elicit the necessary data for this case study, quality methods were employed such as unstructured/semi-structured interviews, participants' observations and analysis of qualitative data. Special emphasis is sought in implicating the material actors' role in the enactment of the centralised system.

By analysing the data from the sociomaterial theoretical positioning, or more specifically, the performativity of practices (Barad, 2003; Orlikowski and Scott, 2008), we argue through the performative actions of the sociomaterial assemblages that agency is being reconfigured to co-constitute the formal and informal practices. Thus, rather than argue that enterprise system's associated best practices eventually replace (or fail to replace) legacy practices, we argue that these practices both co-exist and, in actuality, are intrinsically intertwined. This study's possible empirical contribution to the current IS literature is exploring the role of an enterprise system in its enactment of e-government services, more specifically, G2E (Government-to-Employee) services, which has been under explored in relation to other forms e-government services, namely G2C (Government-to-Citizen) and to lesser extent G2B (Government-to-Business). The possible contribution to theory is drawing on the relatively recent conceptualised notions of sociomateriality, more specifically performativity of practices, to explain the phenomena that emerged in the case study.

2.0 Literature Background

Governments worldwide strive for ways to streamline their business process and conduct their operations more effectively and efficiently and enterprise systems lie at the core of e-government technology (Wagner and Antonucci, 2009). This desire to ever enhance the efficiency and reduce operational and transactional cost drives the public sector to seek out technology, including enterprise systems. Public organisations often suffer from high degree complexity, a complicated bureaucratic system and fragmentation of the power system are just a few characteristics attributed to public sector organisations (Thomas and Jajodia, 2004). The transformation

brought about by an enterprise system is not a superficial one; it attempts to transform the long established practices and introduce new ways of 'how things should be done' or what is called as 'best practices'. For enterprise system's literature, (O'Leary, 2000) defines best practices as "the better or best ways of performing a particular process".

The implications of such presumed 'best practices' is especially pertinent when researching Information Systems adoption in developing countries, where it is vital to understand the 'context' they are embedded in (Avgerou, 2001). Institutions in many countries which develop IT projects rely heavily on globalized objectives and best practices methods of the implementation process. Such a-contextual approach results in disappointing outcomes (ibid). Besides, context is dynamic in nature and also could be interpreted differently (Hayes and Westrup, 2012) and it is extremely difficult, if not impossible, for the designers of technology artefact to account to every possible scenario (Suchman, 1987). Each case of enactment of an ERP is unique and is very much contingent of contextualized environment. This is evident where an ERP was introduced to different public sector organisations of similar structure, scale of operation and general cultural contexts, where outcome is significantly different (Tarafdar and Vaidya, 2005). 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 et al., 2002) and these consequences are even perceived differently by different levels of the same organisation (Burton-Jones and Gallivan, 2007).

Often, research in IS has theoretically followed the research stream which ontologically separates technology from the human/organisation settings with each having their own inherent attributes (See: Orlikowski and Scott, 2008). Such disentanglement of technological from the organisational can be troubling for many reasons. An issue with some Information Systems studies is having a single sided view of treating the technical 'content' separate from the social 'context'. Bruno (Latour, 2007) refers to such research types as 'Sociology of social' which provides distinction of the two. Having said that, enterprise systems are a complex socio-technical phenomenon and the analysis of its complex relations requires more than how to successfully design and implement a system (technical) for a particular

organisation (social), but what the system means for the organisation and how this meaning is transformed contextually.

The point of this literature is to posit that there is (a) no one 'best' solution for adopting an ERP, despite it being touted to be otherwise by the vendors and consultants, who contend as their extensive industrial experience enabled them to form an objective method of reaching this 'best' solution. (b) There is relatively less extensive research being conducted the use of enterprise system within the context of IT-mediated public sector transformation in the Middle east more broadly, and Bahrain more specifically. (c) There is a growing need to understand the local and informal historical cultural practices from a sociomaterial perspective as they enact enterprise systems within government entities.

3.0 Theoretical Perspective: Performativity of Practice

To analyse our case study, we opted for the sociomaterial theoretical lens (Barad, 2003; Orlikowski and Scott, 2008), or more specifically, performativity of practices. In brief, the practices that (re)produces the sociomaterial entities participating in the these practices are said to be performative practices. For example, the act of paying my bills online performatively (re)produces me as a 'payee' and the website as the 'payment recipient' authority. So both the social and non-social are implicated in such an interaction (or intra-action according to Barad (2003)). Using such performative relational ontology, new insights can be gains from analysing the appropriation of enterprise systems. In brief, sociomateriality assumes the ontology of becoming; agency is not an inherent property of the human or the technological; but is manifested from those intra-actions of phenomena. Sociomateriality concepts depart from representational studies from one end and from strong social constructivism from the other end (Scott and Orlikowski, 2013). So instead of siding with a camp in the sociotechnical debate of whether or not humans are ultimately accountable for appropriating technology in a certain way or that technology is responsible in laying out affordance/constrains on human activities, sociomateriality invites us in the reconceptualization of our theoretical assumptions. This new perspective presumes that agency cannot be exclusive to a single actor nor can such agencies be assumed to be pre-existing entities. Instead, it is emergent from the process of performativity amongst other sociomaterial assemblages (Introna and Hayes, 2011). As Barad puts it

"agency is not an attribute, but the ongoing reconfigurations of the world" (Barad, 2003, p. 815). This is especially useful in our case study where the unit of analysis is practices, which is in its very nature is dynamic and emergent.

With such set of assumptions, we argue that it is not the user groups who are the ones responsible for using the enterprise system, but actually it is from performative actions of an ensemble of sociomaterial assemblages that agency is constantly being reconfigured within the user groups and the system. The assemblages include the localized systems, the paperwork forms, the signature on a paper form, the informal connections, which intra-act upon themselves to form agency, which is essential in the enacting the HR enterprise system across the boundaries in the public sector of Bahrain (Refer to figure 4).

4.0 Methodology

The focus of this research is how the centralized CSB ERP system is diffused and appropriated across the government ministries of Bahrain. The data is elicited from interviews, participant observations and secondary documents. A total of 68 unstructured and semi-structured interviews were conducted across intermittent phases: Phase one from August to September 2014; second phase from November 2014 to February 2015 and third phase from July 2015 to October 2015. The first two phases were mainly focused on understanding the workings of the pan-governmental ERP and how the CSB employees developed and managed it. In the third phase the user groups, who are the government ministries, were approached to examine how the ERP in question is used in practice. All the interviews are transcribed using otranscribe.com as a web tool and Nvivo to code and analyse the emerging themes. In the fieldwork visits, particular attention is given to the social and material environment of the work place as the participants work out the system. Secondary documents include laws, regulations, instructions, manuals, snapshots of the system, newspaper publications and sample paper forms were collected, organised and analysed.

5.0 Empirical Background: The CSB and Horison system

The empirical study revolves around the adoption and use of overarching ERP that spans in the public sector of Bahrain. The system in question is an Oracle HR module

(which is also called Horison). Given the small size of the country and it's equally proportioned population-size little over a million, the government invested on a single enterprise system to manage the payroll of its civil services. The implementation was initially conceptualized in 2002 and was formally deployed in 2005. As the years passed, more functionalities were included as the Horison moved from being a centralized system to decentralized (2007) and later self-service (2009). The centralized HR system encompasses all the necessary tenants for a comprehensive HR system; payroll, reporting, leaves application, performance appraisal, time attendance and overtime. Currently, the system caters to and serves over 50,000 employees across over 55 government entities. It is important to note that that relatively small size of the nation entails the government is not divided to a central and branch/state government entities. There are more than 42% of all Bahrainis are employed by the state (Selim, 2008). The sheer size and diversity of the government makes it a challenge to manage and control effectively.
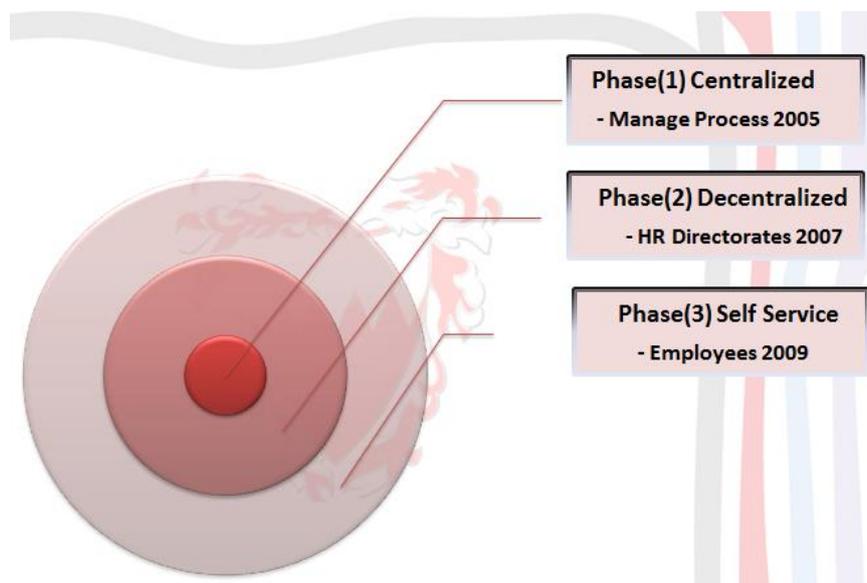

Figure 1.   **Phases of (re)configuration of the Pan-governmental ERP for handling processes centrally to delegate them electronically as part of the e-government (G2E) initiative.**

This centralized system is commissioned, owned and managed by the CSB (Civil Service Bureau), the only government's key HR department. It is important that relatively small size of the nation entails the government is not divided to a central and branch government entities. The main responsibility of the CSB is to manage all Human Resources and payroll services of all government staff in the public sector

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(See figure 2). This government entity which has more than 250 employees, is bestowed on it many HR functions. These include drafting law, standardization of salary structure, reviewing all recruitment and promotion requests, and re-engineering of organisational structures in all of the government entities subject to it. In other words, all the rules and regulations of any employee in the government is legislated and executed by the CSB. So all government employees, irrespective if their position is their job position is a director, minister, secretary, technical specialist, farmer, medical doctor or teacher, their monthly salary has to be through the CSB and their centralized ERP system.
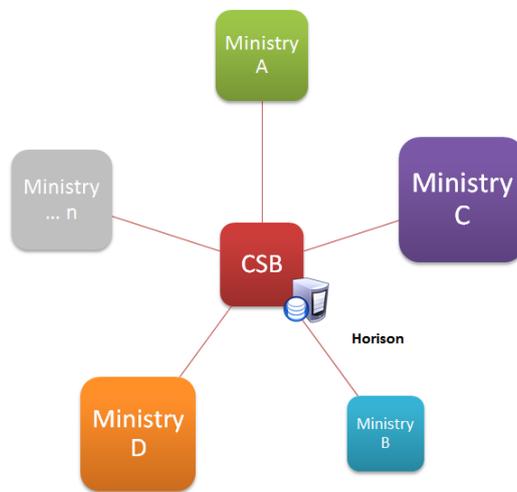

Figure 2. **The CSB caters, consults and dictates laws, regulations and instructions across Bahrain's public sector in all matters of HR.**

6.0 Findings

Due to the limited space, we describe one of the G2E e-services introduced to the Horison system in more detail; which is the leave application self-service. This e-service allows any government employee in the public sector to apply for leaves online. Briefly, a government official logs into his self-service portal; selects the dates 'From and To' he/she intends to be absent for; and submit it. The system automatically calculates the annual leave balance to be deducted, taking into account public holidays and weekends. The leave request is sent to the government employee's assigned supervisor's worklist screen. The supervisor has the option of approving or denying the leave request. A notification of the supervisor's decision is sent to the government employee. Figure 3 illustrates how such a typical G2E e-service should function:
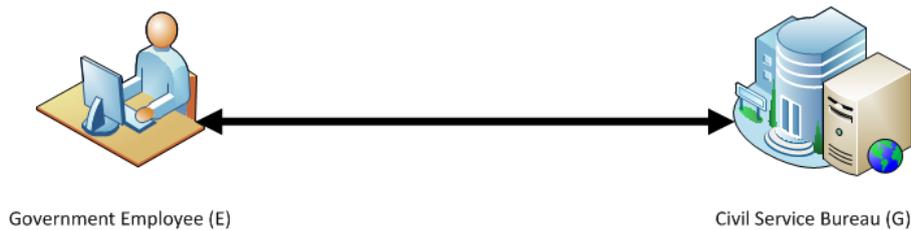
Figure 3. **Intended use of the G2E e-government self-service.**

Notice that in the described procedure, there are no HR personnel involved and nor paperwork. This procedure was not as such when the system was centralized and then later decentralized to the HR staff. When the system was implemented the first time in 2005, the HR of every government ministry would dispatch leave requests in batches of paper forms to the CSB. A CSB employee in now-defunct operations directorate checks the validity of all leave requests and inputs it into the Horison's database. In 2007, the decision was made to decentralize and hence assign certain tasks the CSB conducted to the ministries. The HR directorates in ministries were granted access to Horison system where they are able to input the leaves themselves. With the general direction of Bahrain's government towards e-services, the leaves application process was re-engineered to be performed completely paperless and bypassing the HR directorates within the ministries. Only the government employee and his/her assigned supervisor are involved in leave application.

6.1. Enactment though Duplicate Work

The prescribed leave application self-service, though elegant in its ways, is not universally practiced in government ministries. The legitimacy of the HR directorates' local practices within the ministries seems to be threatened of being subverted. What is empirically observed is that it is more of G2G2E e-services than G2E as intended (See figure 4). So instead of using only the Horison system to apply for leave, they require that it is also inputted within their own local HR system. There is a ministry (a user group) where the HR personnel request the government employees to apply for leave through Horison only after they filled up a leaves form request. The paper leave request serves the HR personnel to enter the leave request to their own local system. As one of the HR personnel in the ministry explains: "*When someone applies for leave it goes to the director of the directorate, after approval the secretary of the director will enter it in the internal system. Then they will tell the employee enter it in*

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[Horison] self-service." (HR Personnel in Ministry A). In other ministries, the leave request form is filled and submitted to the HR personnel, who in turn will enter the leave request in the stead of the employee requesting. "*Before the employee fills out this form I gave you, keeps his CPR, name, dates, printed and then signs here. 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 can refer to it.*" (HR Personnel in Ministry D).
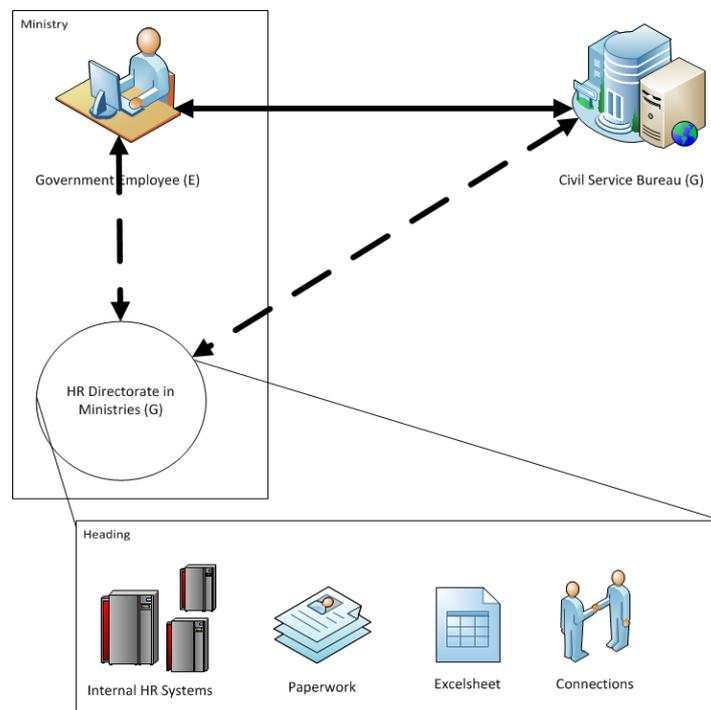

Figure 4.   How the G2E e-government self-services is actually enacted through intermediaries (G2G2E).

Another ministry opted not to use paperwork at all in the leave application process. However, the employees only do so through the ministry's local HR system. The HR staff will update the Horison to keep it in sync with the local HR system. "*The Horison has nothing to do with it [applying leaves]. He [employee] applies it through our system. He requests for the leave. It requires 2 level approval: The direct supervisor, and the chief... Sometimes it needs approval from one individual only depending on positon*" (HR Personnel in Ministry C).

Applying for annual leaves in government	CSB and Ministry F (Expected Practice)	Ministry A	Ministry B and D	Ministry C
What is practiced in the respective ministry	Employee applies for leave online through Horison. Supervisor approves request through Horison online.	Employee submits leave paper form for secretary of supervisor to input it in the local system. Employee is then requested to apply for leave through Horison.	Employee submits a paper form to supervisor. Both sign and submit it to HR who enter it in local and Horison systems.	Employee access local system online and apply for leave. Supervisor approve through local system. HR staff update Horison accordingly

Table 1.   Different enactments of the G2E self-service across different ministries in Bahrain.

We probed the HR personnel on why don't they allow the government employees to use the e-services. There is an also assumption there will be abuse if the HR personnel (and their local system) is not part of the e-services. One of the responses was: "*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 from their senior [of the employee]. 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*". (HR Personnel in Ministry B) So to re-assert their own legitimacy within the e-service, the HR personnel in the ministry implores their employees that it is 'only through' them that their leave requests can be validated.

Other government ministries expressed concerns about the lack of functionalities of Horison:

"*R: I wanted to ask you, why dont you be full dependent on Horison system?*

P: It does not have all these stuff.

R: What stuff?

P: The details are the things which you have customized to what you want.

R: What I understood from them [i.e. the CSB] that they are willing to customize for the [Horison] system from you.

*P: Yes, but when they do it for us? *grins*… That's the question.*"(HR Personnel in Ministry C)

On probing the participant further, it emerged that there is nothing substantially lacking with the Horison system. Even later on the interview he admitted that the Oracle is comprehensive and technically sound. Yet the HR personnel would rather not use the Horison system as intended. They cite reasons to be the lack of trust in the system itself in the availability of the system and its data; or to be more exact 'their system' as in the Horison.

"This one we have made it. It is not like the CSB did for us… Suppose that the leave balance of an employee got messed up or if the system goes down, or if the data has been deleted, in any case we would have record of the leave balance of the employee"
(HR Personnel in Ministry D)

This brings us to a common reasoning provided by ministries' officials to hold on to their current local practices, which is the question of ownership. Without direct ownership there cannot ensure there are the 'necessary' controls in place to clamp down on negligence and misuse of the system. The following is a sample of an interview excerpt about this finding:

"P: … this [central and local HR system] will lead double work. I check here 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. I am not talking about municipalities, they are around 3000 and distributed across 4 districts.

…

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 after 2 months.

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

R: So you dont trust them 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."
(HR Personnel in Ministry C)

6.2. Enactment through Paperwork

Some would go to the extent of justifying their currently practices by stating that actually the manual paper-based is more accurate than the system. The following was an exchange with an HR employee in one of the ministries.

R: Dont you think you do a lot of duplicate work?

P: No, why? But it is true. But why we do it? This is crucial. ... 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 system is able to print his leave balance, right?

P: It can print, but sometimes the employee says he is not convinced with 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 CSB sometimes might face a problem or blunders the leave balance of the employee; or does not save the leave of the employee by mistake. Here, no, everything we enter it." (HR Personnel in Ministry D)

I bounced this perception of the paper being more reliable than electronic means to a director in the E-government Authority in Bahrain. He responded distastefully by stating:

"*Today if there is a transaction which is not available online but it is printed on paper that they have paid, they 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 in E-Government Authority)

This is not to say that all ministries would opt for some paperwork or local system to process their leave requests. There a couple of ministries which follow let their employees apply for leaves only through Horison. According to the HR representative in one of the ministries:

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

R: Others dont 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. Here lies the trust. If the system tell you that I have done it, then I have done it and not someone else." (HR Personnel in Ministry F)

These snippets from the data demonstrate the re-configuration of the centralized system's use to accommodate, compliment or even replicate other local practices; be it a manual system, an excel sheet or a paper form. This may not be what the owners of the Horison intended it to be. The CSB planned that their system will achieve efficiency by reaching directly to the government employee through an electronic standardized e-government service. The intended purpose is that their system is the 'the HR system'; where no government entity needs to resort to any of their local HR systems. Nevertheless, as Suchman (Suchman, 2007; 1987) reminds us that no matter how much the designer attempts to predict the actions and inscribed procedures for the users to follow; actions will always be situated.

6.2.1 Role of Signature – The Obligatory Passage Point

In a Weberian shaped bureaucracy of Bahrain's government, there is cultural-historical significance when it comes to the role of the signature in public administration. The practice of signing paperwork is prevalent in many managerial roles in government.

The significance of signature is not exclusive to my case study, but is ubiquitous to public administration in general. To provide a glimpse of its prevalence in everyday managerial life, the following statement captures this:

"You know the Bahrain, we have still, you know, they like to sign… They dont 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 from old mind and still in government. they love the manual " (Chief IT developer in CSB)

It serves as assurance that that the paperwork signed has been reviewed by the individual signing. According to a participant it is "*a way of clearing your consciousness of everybody. I did not do this without the approval of supervisor. And my supervisor did not approve anything unless he has the right data.*" (HR Personnel in Ministry B). With the IT-mediated public transformation occurring in Bahrain, it was a challenge to capture signatures into technological artifacts. In our case, the Horison system is complimented with an e-Archival system called Saperion. The Saperion is basically serves as an electronic fax where paper (with the required signatures) can be scanned, stored and sent electronically. The Saperion system is used in every promotion request that requires the approval (i.e. signature) of the designated authority.

So despite the rhetoric of e-government G2E services being conducted through electronically, there is a paper shadow on the trail of such e-services. This is prevalent in the promotion of a government employee. For the promotion in any government entity to take place it has to go through an electronic workflow; which is a series of procedural steps dictated by the CSB. The CSB role here is to ensure that the employee to be promoted satisfies all the conditions. An example of condition include an employee cannot be promoted within 2 years from his/her last promotion. For the promotion to take place, the HR personnel have to enter the details of the employee to be promoted to the Horison system. The HR personnel also fills out a statement 52, which also contains the details of the employee but also should include the signatures of the top management, such as the HR director, undersecretary and minister. This scanned statement 52 is sent with the electronic details that was inputted in Horison to a promotion specialist in the CSB. The promotion specialist's task is to review the promotion request and ensure all the data is complete and conditions are satisfied. The promotion specialist approves or reject 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

CSB. 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 generally takes one to two weeks to be completed.
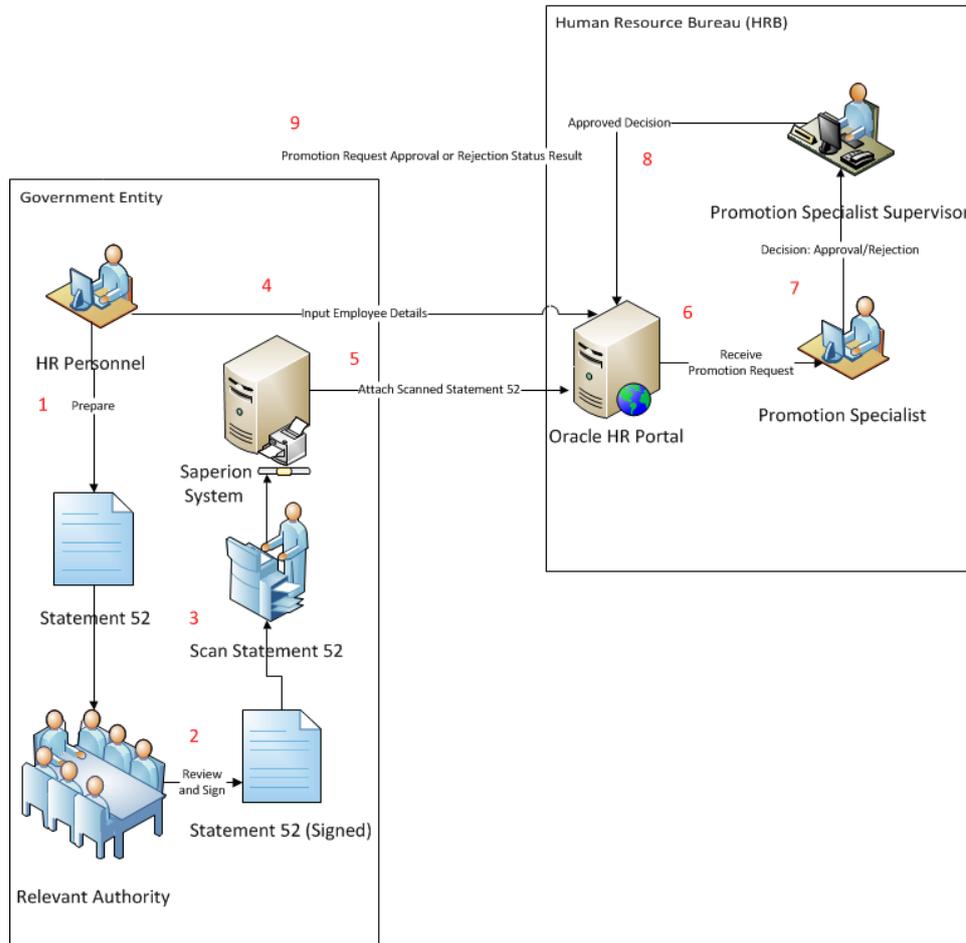

Figure 5. The workflow for promotion request sent from a government entity to the CSB for approval

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". The 'Relevant Authority' is defined in Article (2) of the same law as "The Minister or the President of the Government Entity". The formal way of capturing the decision of the respective Relevant Authority is the signature. So the electronic service of promotion is basically the HR personnel enters the details of the employee to be promoted in Horison and scan formal form known as Statement 52, which contains the employee's details and, more importantly, the signature of the

Relevant Authority. Note that the law, where the Horison system is designed to embody and represent, does not specifically mention signature. Nor it does state signature anywhere in the law book. Yet, it is somehow equated with approval.

The act of signing is generally understood to be the de facto expression of approval from the signing party. The following statement provides who pervasive the local practice of signing is in everyday managerial life in Bahrain:

"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 that someone should follow. But I do what I can do to consolidate all important documents through my office." (Director in Government Entity)

Technically, the system is capable to be configured to require the electronic approval of the minister as attested by the chief of Horison Development team "It stops here, it does not go to Director General or the President of the CSB electronically. The system is capable to send it to them. But the question is, will they see it? Will they follow up with it? Here this is the issue." (Chief of system development in CSB)

There is an understanding of signatures ensure trust as a means of control measure. The more individuals signatures, the more controlled the process is. When asked an E-Government Authority Director about why there is signature everywhere, he responded: *"All these signatures disappear if the system itself has controls. You need one person to do the authorization for you, and he is your line manager. The rest of signatures they dont add it just like that, they add it to add more control to it… The control here is what guarantees to me that this HR official did not enter any information without referring to the line manager? What guarantees this? in foreign countries, the one who guarantees this is the trust. I trust Ghassan will not enter information without referring to me, to promote someone or grant them leave or whatever. The signature here will guarantee here that the line manager knows, and any others know about it. This is the controls we want to keep.*" (Director in E-Government Authority)

The Horison system was re-configured to incorporate the signature as a necessary condition or control mechanism. Thereby, re-inserting the signature indirectly into the system through practices followed by the government entities. The signature seems to form of obligatory passage point, which cannot be replaced by an electronic means. I have posed a question to a legal advisor in the e-government authority in Bahrain of why don't the whole process be electronic, who responded that "*Probably why we are obsessed with signatures because a signature only I can do it… But with a button anyone with my login details can do it.*" (Legal advisor for E-Government Authority). In other words, it is to say that 'the signature does something the system does not'.

6.4. Enactment through informal connections

The introduction of the centralized ERP system brought about certain set of procedures which are expected to be followed across the government ministries, who are the user groups. One such expectation is that all service requests are to be treated 'equally' in a first-come-first-serve basis. According to a CSB employee who used the Arabic phrasing "*Kelna Sawaseya*" which is can be translated as "We are all equal" in describing how the centralized system is configured to be. On observing the field sites, this is not entirely the case. As the one of the CSB participants point out that "not all your fingers are equal". There is the informal historical-cultural practice of utilizing one's own network (or 'wasta' as it is known locally) to circumvent the standardization of processes. On the face of it, the services provided seems to be worked out smoothly through the system. But it is through individuals who invoke their own subjective positions to 'hasten' some services that what actually happens.

This following field notes was from observing the working of the head of reporting services in the CSB:

"*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 'urgent' this other request. Instead of delegating the problem to one of her staff, as she does usually, 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 was working on it, the acting director drops by to follow up again. 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 seem to be anxious and stressed"

The following interview excerpt was an exchange to understand what 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.

R: How do urgent request arrive to you?

P: Depends. It always should come from our director for urgent request. 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 director and her secretary.

R: How often for an urgent cast to reach u via email, phone and in person follow up by your supervisor. So does your director call you for urgent request?

P: 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 she calls me directly for urgent requests."

(Fieldnote taken 18th November 2014)

Other informal ways of 'making things happen' is when an HR employee from a government ministry physically visits the CSB to follow-up on some request pending in the system. The following is about an HR personnel who is responsible for the allowances of his ministry's employees:

"You know what from how frequently I badgered about how the allowances have not been approved? I swear, I take my things and go to the CSB 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.

R: So you still go?

P: Yes I still go to them to follow up on matters. They are like the spring where everything pours into them. So if they dont 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? Ok, then what? So instead of hearing their persistent nagging, I go to them better *laughs* (HR Personnel in Ministry C)

These two pieces of empirics demonstrates the 'tip of the iceberg' when it comes to informal ways of how the system is worked out. It is invisible from the formalized process where the system shows that it indeed did receive, process and output accordingly. It is these informal practices that underpinning the formal work that are crucial to the actual working of the centralized Horison system.

7.0 Analysis

This research is consistent with other studies which explore the contestation of the best practices brought forth by software-based technology, such as enterprise system in our case, cannot be forced upon user groups (Boudreau and Robey, 2005; Suchman, 2007; Wagner et al., 2010). However there is a difference from such studies, and from such lies this paper contribution to theory. These studies posit that it is from the dialectic processes of accommodation and resistance of the social and material assemblages (Pickering, 1993, 2010) – or "mangle of practices" - that the enterprise system gradually and eventually is appropriated and the legacy practices are phased out. From the empirical data that emerged in our case study, we found that local informal practices, 'legacy' practices as others refer to it, are not being discontinued. There is clearly some form of resistance and accommodation in the practices of enacting the enterprise system. However, rather than just being in constant contestation, they are co-constitutive of each other. Indeed, the local informal practices are being reinterpreted by the user groups as being a necessary to the adoption of the enterprise system.

The government ministries would go to the extent of justifying their performative actions, even if it involves duplication of work through paper forms, as the standardized Oracle HR is lacking is certain functionality, be it reporting or accuracy. Performative actions here imply that a set of sociomaterial practices that in ways (re)configure the entities that are participating in the phenomena (Introna, 2013; Scott and Orlikowski, 2013). Hence, it is through the performative actions of the HR staff within the ministries that reassert themselves as 'part and parcel' of the G2E e-services enactment. In this sense, a better term for the actual enactment of such e-services is G2G2E. On the face of it, it may seem that the e-government services are being choreographed and enacted accordingly. According to biennial report published by the United Nations, Bahrain is ranked 18th worldwide in their E-Government Index

and the 7th in online service delivery (UN, 2014). This 'ranking' performatively (re)produces an image of Bahrain's 'advancements in ICT mediated e-government achievements. But behind-the-scenes, as this study explores, there is a set of informal practices happening to enact such services; more like a 'Potemkin village' where the front-end does not express the back-end of the enactment of these e-government practices.

Going back to our research question: what are the practices involved in re-configuring the centralised system are: the localised and informal practices. It is the situated historical-cultural practices of appropriation of a local (often duplicate) HR system, the signing of the paper forms, the informal call or visit, are considered to be indispensable by HR directorates in the ministries. These back-end informal practices within the ministries are being reinstated to be crucial to the 'proper' enactment of the enterprise system. Thus in this regard we argue that it is through performativity of such local informal practices (be it by sociomaterial assemblages of legacy systems, informal connections or paperwork) that the ministries' HR staff are re-produced as indispensable agents in the appropriation of the standardized formal enterprise system. To put it in another way, the informal and formal are re-enacted in such a way that they are inextricably intertwined or 'imbricated'. Not only are the social and the material imbricated in the enacting of the centralised system (Leonardi, 2011, 2013), but also the informal and formal activities (Hayes et al., 2014).

In terms of future research, the question remains whether the phenomena observed is representative in other non-western countries as well. And if so, what arrays of practices is being enacted in relation the use of an enterprise system within the context of IT-mediated public sector transformation. There is a need for further studies focusing on intrinsic and situated practices associated with the enactment of enterprise systems which are being constantly being (re)configured to account for e-government services. Enterprise system studies generally focus on identifying and exploring the factors which lead to successful (or not) implementation and deployment of enterprise system, which in themselves have value and contributed significantly to the IS literate. However what need to be investigated further are insights in the informal side of practices. This can bring forth the specifities of localised sociomaterial practices which are invisible, yet significant, to the actual use and appropriation of pervasive artefact, such as an enterprise system in situation specific contexts.

8.0 Conclusion

The significance of this study lies in the emphasis on the localised and situated practices when exploring the use of an enterprise system in the highly contextualised Bahrain's public sector e-government adoption. Through this case study, we argue that even such pervasive system is dynamic and continuously is being configured and re-configured through its interactions and intra-actions of heterogeneous assemblages of social and material. This case demonstrates that a set of localized work practices *cannot* be discarded and replaced with formalized 'best practices' ones. Instead through some form of performative reconfiguration, the work practices are re-interpreted to accommodate the amalgamation of practices that ensue. In terms of theory, we hope that this paper can draw attention to the richness of the subject area and the importance of using performativity of practices conceptually in IS studies as a way to continuously redefined to co-constitute resistance and accommodation in the enactment of an enterprise system. In regards to practice, we hope this paper provides a glimpse of the 'behind-the-scenes' practices that should be taken into account by the practitioners and vendors in enterprise systems deployment and support.

9.0 References

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