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Developing e-Services for Lagos State: Understanding the impact of Cultural Perceptions and Working Practices

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Research Paper

ABSTRACT

The development of e-services is not only a technological phenomenon, but involves organizational and social complexities. In this paper, we build upon an interpretive case study, and examine Lagos State's initiative, in order to showcase how the implementation of public sector e-services have been affected by organizational and cultural perceptions and the working practices of individuals in a developing country. This research provides insights for international organizations that determine the status of countries by providing online access, products and services to their citizens, and to Internet Service Providers who pursue new territories for the provision of new products and services. It also informs governments around the globe about cultural perceptions and working practices, thereby helping them determine their developmental progress and decide their future endeavors.

Keywords: Culture; control; work practices; institutional theory; E-Government; Nigeria

INTRODUCTION

Over the recent years, there has been a significant rise in the availability of Information and Communications Technologies (ICT) around the globe (Avgerou & Li, 2013). In developing countries in particular, ICT are considered to provide services that can reduce or overcome the divide between poor, rural areas, and urban ones (Madon, 2004), and to facilitate the social inclusion of marginalized groups (Walsham & Sahay, 2006). There is also a general belief that ICT contribute towards organizational efficiencies, rational decision-making (De Sanctis &

Gallupe, 1987), and productivity (Landauer, 1996). Further, it has been argued that ICT can have tremendous administrative ‘potential’ for the public sector (Heeks, 2001), and are often seen as integral for the provision of e-services, such as the dissemination of information, commercial relationships with private sector organizations, services to individuals, and online communication within a country’s states and government agencies, among others (Ciborra, 2005).

Further, previous research has found that during the implementation of new technologies, several problems may surface (Brooks, 1997), such as, failing to restructure and redesign an organization in preparation of new information systems (Schaffetz & Kersten, 1985). Equally so, there may be an overemphasis of the technical aspects whilst overlooking the human and organizational aspects (Symon & Clegg, 1991). However, ICT within an institution, such as a public sector organization, are governed by people-systems interactions and in-place processes (Kim, Kim, & Lee, 2009), which suggests that structures, rules and resources are all integral aspects during the development and implementation stages. Therefore, the introduction of new ICT for the provision of public sector e-services necessitates the contribution of the society, the public sector, and that of various third-party organizations. In Information Systems (IS) research, such views are held by some researchers who suggest that when a system is developed, global, societal and communal attitudes as well as, geographies, histories and languages need to be considered (Walsham, 2002; Walsham, 2001; Appadurai, 1997). These distinctions lead to the view that in cross cultural IS development teams “when working with ICTs in and across different cultures ...there will be different views of the relevance, applicability and value of particular modes of working and use of ICTs which may produce conflict” (Walsham, 20002: p.360).

Using the view that cross cultural development teams do have diverse views, in this study, we focus on an e-services project in the public sector of a developing country, aiming to understand how its development and implementation affected organizational and cross-cultural perceptions of the involved actors. Specifically, we investigate an automation initiative in Lagos State, Nigeria, through the concepts of culture, working practices and examine the conflicting interests of public sector employees and external consultants, as arising during their interplay along the duration of the project. We consider this study to be of interest for two main reasons. First, cultural and social factors in particular are rarely discussed collectively in IT research in relation

to public sector e-services (Kamel Alomari, Sandhu, & Woods, 2014). Second, following Walsham's study (Walsham, 2002), more research is needed in these issues because culture is dynamic, where cross-cultural differences are enduring, and the development and implementation of ICT in developing countries most likely will not build, nor will lead in homogeneity of stakeholders' perceptions. We thus consider the case of Lagos State as an excellent opportunity to investigate these issues as it is characterized by many different cultures and tribes within and across the State and its public sector.

Our study's contributions are along two dimensions. First, previous studies focusing on African countries are mainly focused on assessing the level of adoption or diffusion of e-services; as far as Nigeria is concerned; specifically, researchers are typically concerned with the country's readiness for e-government, rather than the many issues arising during the implementation of an IT project. On a practical level, our findings offer insights into the norms and practices of a developing country with diverse indigenous societies, and for policymakers, our study informs about the outcomes of national policies and strategies regarding digital connectedness.

The paper is structured as follows. In the next section we provide a review on the concepts of e-government development, culture, and working practices. Next, we describe our research approach, which is followed by an analysis of our findings. The paper closes with a discussion and the conclusions of our study.

THEORETICAL BACKGROUND

The impact and the potential of e-government initiatives in developing countries cannot be treated in a similar vein to those of developed ones; hence, our understanding needs to be 'reconstructed' bottom up, by observing the interplay between the actors involved in the automation initiative (Ciborra, 2005). In this section we discuss issues pertaining to culture, e-government and institutional theory, with an emphasis on developing countries.

Culture and E-Government

e-Government projects combine the supply perspective (the organization) and the demand perspective (citizens), where processes and services get diffused and adopted. Information systems, and IT in general, are part of the human social structure (Irani, Love, Elliman, Jones, & Themistocleous, 2005); therefore, e-government initiatives need to factor in cultural

considerations as well. This is particularly relevant to the African context where loyalty, kinship, authority and risk aversion are particularly valued (Kuada, 2010).

Culture, however, is one of the most difficult factors to isolate, define or measure (Trompenaars & Hampden-Turner, 1997). In an organizational context, culture is defined as an “organization’s capacity to maintain itself and grow and continue to act effectively in the face of changing circumstances” (Schein, 1985). Comparatively, Harris and Ogbonna approach it as “pervasive, eclectic, layered and socially constructed, generated through values, beliefs, and assumptions but expressed through artifacts, structures and behaviors” (Harris & Ogbonna, 2002, p. 32). Along these lines, culture may be seen as encompassing more observable aspects, such as technological artifacts, audible and visible behaviors, and less observable aspects, such as values (Schein, 1985). With regards to values, Leidner and Kayworth (2006) note that most studies approach culture in terms of reference groups. This is seen in the case of, for instance, the value dimensions of national culture (Hofstede, 1980). They further note that, at the organizational level, research tends to focus primarily on the relationship between cultural values and the behaviors and actions of social groups.

In terms of African countries, characteristics are determined by the co-existence of multiple ethnic and cultural groups, known as tribes or societies, within and across nations, and of multinational individuals from different religious groups. Therefore, additional aspects of culture need to be considered; namely, values that relate to how people organize their everyday life (e.g., ‘office’ versus ‘home’ time) as a result of their religious, ethnic, national and cultural background (Hill, Loch, Straub, & El-Sheshai, 1998). This approach reveals that there are cultural and ethnic differences within nations and ethnic and cultural groups across nations; thus making the use of national culture highly problematic (Myers & Tan, 2002). Further, this context transforms values into part of the social norms that define the context for social interactions through which people act and communicate (DeLong & Fahey, 2000).

Despite the importance of culture, only few studies examine cultural differences, organizational culture and e-government together within the context of developing countries (e.g., Joo & Hovav, 2016; Choi, Park, Rho & Zo, 2016). Additionally, e-government studies tend to simplify and emphasize issues pertaining to adoption, usage and diffusion, following primarily the quantitative tradition (Seng, Jackson, & Philip, 2010). Whilst such studies are thorough and

informative, they inevitably pay less attention to the diverse cultures nesting within a single country and/or organization and the related issues. If, using the earlier arguments of Walsham (2002; 2001) and Appadurai (1997) ICTs are causing globalization, but this phenomenon is one that involves several complexities including aligning the views and attitudes of diverse cultures, societies, histories and languages. There is also evidence identifying that public sector e-products and e-services require attention to diversity aspects, such as race, age, gender, disability, sexual orientation and religion (White & Rice, 2010). For example, a study conducted in Malaysia, illustrated that organizational culture, expressed through egalitarianism, individualism, hierarchism or fatalism, can both enable and impede the implementation of IT services and e-government initiatives within government councils, and that any IT implementation needs to be accompanied by techno-change management (Seng et al., 2010). In terms of Nigeria, As Korpela et al (2000) found that Nigeria does contain many diverse tribes that have “sharp cultural discontinuities” (Walsham, 2002: 375), which suggests that when attempting to utilize Hofstede types of studies, these differences will not emerge; thus disserving these tribes views and attitudes. We intend to illustrate the view Walsham (2002) holds is true in the case of the development and implementation of a Nigerian public sector e-service.

Institutional Theory, Regimes and E-Government

Yang posits that “the evolution of e-government is a process of institutionalization” (Yang, 2003, p. 437) as the government learns “to govern online” (Mahler & Regan, 2002). Indeed, a USA-based study on e-government illustrated that innovator states tend to be those “that have created facilitating institutions”, while the most committed states “to reinventing government reforms are the ones that have established new institutions for e-government” (Tolbert, Mossberger, & McNeal, 2008, p. 558).

A theoretical framework that examines institutions and has been used in the past to investigate the challenges of e-government projects is that of institutional theory (Fountain, 1995, 2001). In institutional theory, institutions are “multi-faceted, durable social structures, made of social elements, social activities, and material resources” (Scott, 2001). They may be considered as rules of behavior based on various important foundations, such as culture, mental models, legislation, social norms, and political structures. However, they can be affected over time by the values of their members and the environment in which they are embedded (Selznick, 1949), and

they may act according to symbolic logics and adopt specific practices simply because they provide them with legitimacy (Meyer & Rowan, 1977). As far as institutionalization is concerned, there are three different mechanisms; the coercive (or regulatory), which draws upon political and legislative influences; the mimetic, which is put in action during uncertainty and draws upon other systems' practices; and the normative, which builds upon prevalent norms within the organization's sector (DiMaggio & Powell, 1983).

However, e-government projects, and public sector e-services in general, require access to a range of rules, operational regimes and regulations (Bloch & Bugge, 2013). Kallinikos and Hasselbladh have examined these concepts and distinguished between regimes of control and regimes of work, where the former were found to be “formal templates for structuring and monitoring the collective contributions of people in organizations, irrespective of the nature and particular character of that contribution” (Kallinikos & Hasselbladh, 2009, p. 269), and the latter where described as “technological solutions, forms of knowledge, skill profiles, and administrative methods” (Kallinikos & Hasselbladh, 2009, p. 267). In this sense, control regimes are tied to the diffusion of formal organizations, they are aimed to bear on work regimes, act upon them and shape the criteria of relevance to work regimes. They are therefore linked to the goals and priorities of particular groups (e.g., managers). Next, regimes of work “do not simply express the ideas and goals of a collective at a certain point in time, less so of a particular individual” (Kallinikos & Hasselbladh, 2009, p. 267). They pertain to a societal domain and are derivatives of intentionally designed structures and task processes in work life. In their work life, people act as they have been trained to act, and their goals and actions become solidified in their work and administrative routines and standard procedures blend in together with behavioral aspects in ways that it is difficult to distinguish one from another (Kallinikos, 2006).

For this research, institutional theory can help identify the challenges in implementing an e-government project. Namely, the three institutionalization mechanisms can inform research regarding the adoption, diffusion, and duplication of an IT project (Kim et al., 2009), while regimes of work and control (Kallinikos & Hasselbladh, 2009) can help identify any hierarchical systems within the public sector, especially because e-government projects are expected to lead to flatter hierarchies, thanks to more efficient and effective work processes as a result of smaller work force and fewer layers in administrative tasks.

Having identified and discussed the theoretical foundations guiding this research, the next section considers the research approach pursued for this study, including issues relating to the collection of the empirical material and its analysis.

SITE SELECTION: LAGOS STATE, NIGERIA

Nigeria is a developing country that struggles with restoring public trust to the government and with clearing the public sector from persistent corruption. For the government procurement process, vast sums of money are exchanged behind seemingly closed doors. Matters worsen as public service contracting is often highly technical; therefore, citizens are overwhelmed and can't take advantage of recent legislation that allows civil society organizations to observe all stages of the procurement process. As a result, citizens are often unable to provide the necessary feedback, which could potentially ensure effective governance (World Bank, 2013).

Our study focuses specifically on Lagos State, the smallest, but most populated (over 5% of the estimated population) of Nigeria's states. In terms of the indigenous societies, it has a higher percentage of the Yoruba population, but there is a very high integration of all indigenous societies. The main practicing religions are Islam (almost 50%), Christianity and indigenous beliefs. Lagos State has five divisions and twenty local government areas, further divided into local council development areas. In this study, we focus specifically on Lagos State government's initiatives. The government of Lagos State government has made large financial investments for developing e-services projects, which led to the establishment of the Lagos State Ministry of Science and Technology and the Oracle Training Center (Chete, Oyemade, Abere, Chiemeke, & Ima-Omasogie, 2012).

Lagos State was chosen for two reasons. First, by investigating the 'inner' workings of the particular project, we can understand the challenges and successes of developing and implementing e-government projects in a Nigerian state, and in a developing African context in general. Second, Lagos State is the most populated and the most viable, financially- and industrially-wise city of Nigeria. It has been an affluent and prominent city for many years, with a very mature infrastructure and wealth in its own right. It therefore offers access to ample empirical material.

The Lagos State Initiative

In 2001, the governor of Lagos State conceived the implementation of advanced IT, in an effort to encourage good governance and the efficient management of financial, human and material resources of the state. This led to the Global Computerisation Programme (GCP) for *“manag[ing] both private and public sector enterprises efficiently and effectively for now and the future”* (Tinubu, 2000). A second impetus for the governor’s vision was dictated by a policy document at the federal level, namely the National Economic Empowerment and Development Strategy (NEEDS), whose main purpose was to be ‘the people’s’ plan (Nigerian National Planning Commission, 2004). NEEDS was developed on the basis of four key pillars, i.e., the redefinition of the government’s role for the economy, the creation of an enabling environment for private sector growth, the improvement of social services delivery, and the creation of a new value system. In essence, NEEDS emphasized both national economic policy and the importance of IT and ICT. Safeguarding GCP’s success and sustainability was of paramount importance. Therefore, various committees were created with the aim to evaluate the situation within Lagos State departments and ministries and to identify possible solutions to the many existing administrative problems. Inefficiencies, ineffectiveness, corruption and bureaucracy were among the most important problems.

In 2001, there was a joint programme between Lagos State government and an American organization, which involved the implementation of ERP using Oracle software, while a third party provided project management. The project also involved network infrastructure, which included a fiber optics network, hardware, software and capacity building through training on system use. In 2010 the government changed, which wanted to ensure that Lagos State would continue its path of prosperity by further developing its IT potential. As a result, the project was considered as essential for the economy’s growth (Lagos State Government, 2010). The new government also recognized that IT was needed for managing and maintaining records and files within the Ministries in an automated fashion. This led to recommending an enterprise-wide Electronic Document Management System (EDMS), which could capture paper-based documents, convert them into a digital format, store them and manipulate them, interface with the state’s finance departments to store document copies, such as receipts, or pay-slips, and provide a secure environment, while it could update, distribute and provide various versions of documents that could be handled effectively by the new system.

RESEARCH METHOD

According to institutional theory, institutions are “multi-faceted, durable social structures, made of social elements, social activities, and material resources” (Scott, 2001). They may be considered as rules of behavior based on various important foundations, such as culture, mental models, legislation, social norms, and political structures. For a public sector e-services project, this involves the entanglement of several stakeholders, such as unions, citizens, business associations, and employees among others. Further, the African context, and Lagos State in particular, there are many groups of diverse nationalities, ethnicities and religions, all of which share between them and among them several different understandings. Therefore, one needs to investigate people-systems interactions and various processes as social practices unfold (Walsham, 1995).

As a result, we approach technology, not from a positivist or reductionist perspective, but from a social constructivism one, where people socially construct and use technology within wider institutional contexts (Orlikowski & Barley, 2001; Orlikowski & Robey, 1991). Therefore, seeking to, first, provide an in-depth understanding of Lagos State’s e-government initiative, and second, offer the stakeholders’ own understandings and viewpoints, rather than impose our own assumptions and preconceptions as researchers, interpretivism is a natural choice as it focuses on the complexity of human sensemaking as the situation emerges (Kaplan & Maxwell, 1994) and it attempts to understand phenomena through the meanings that people assign to them.

Our research design follows that of a case study because the boundaries between the context and the studied phenomenon are blurred (Baxter & Jack, 2008). Specifically, we investigated the working practices of the involved individuals within their natural setting, which entails an inquiry into the actions and perceptions of the stakeholders involved with the development and use of the e-government system, and the changing context within which the implementation of this system took place.

Collection of Empirical Material

The research team consisted of four researchers, two of which were indigenous, one male of Ibo¹ descent, and one female of Yoruba² descent. These two assisted with the process of acquiring information regarding the cultures, the social system, the operations of government agencies, and by providing the perspective of an insider into state government initiatives. The third researcher was born and raised in Africa, and offered background knowledge on the values and attitudes of African societies, which guided the research team in identifying pertinent issues in relation to Africa, and the various cultures. The fourth researcher provided the view of the outsider, helping the research team to question issues that were not apparent to the other four due to being immersed in the research context.

Empirical material was collected using various sources; thereby ensuring triangulation, allowing multiple perspectives to emerge, and the crosschecking of evidence and interpretations (Eisenhardt, 1989). Namely, we used interviews, observations, archival data, such as, online sources, including Lagos State governmental websites, and government documents. Interview material was collected through semi-structured interviews, which were recorded and conducted mostly face-to-face, or through telephone and Skype. Interviewees were selected in a way that would ensure diversity and adequate experience with the Lagos State project. Specifically, they were selected from the researchers' network, which is typical for studies focusing on Nigeria and developing countries in general. However, participants belonged to 'a circle of friends' rather than drawn from a hierarchical system (i.e., parents or grandparents), because in the latter case, there is a bias risk as it is typical for respondents to obey their seniors' command and respond in ways that are assumed to satisfy the researcher's aim. Thus, we sought to ensure that no one was forced to participate and that individuals from all the organizational levels participated. We also ensured that there was theoretical saturation of the empirical material, i.e., that any additional interviews would be conducted only if they promised to provide supplementary and substantial findings and perspectives, thus adding value to the study.

Overall, there were 83 participants in the study, which included an ICT director, IT advisors to the Federal government and Lagos State, Oracle employees (USA), consultants from

¹ Ibo is a Nigerian indigenous society.

management consultancies, users of the ERP system, accountants, HR personnel working for the Lagos State government, personnel from the Science and Technology, and Information & Strategy ministries located in Lagos State. For the cultural and ethnic background of the interviewees, selected individuals spanned all organizational levels of the main departments that were involved with the ERP's implementation and derived from the main indigenous societies of Lagos (i.e., Yoruba, Hausa and Ibo (or Igbo)). Naturally, other societies do exist in Lagos State; however, individuals from these three societies largely dominate the public sector. The age of the participants varied from 18 years old to 65 years old, with the majority being between 18 and 49 years old. Details of the participants are presented in Table 1.

Table 1. Study Casebook

Age	Gender	Organizational Positions			
		Lower Management	Middle Management	Senior Management	Total
18 - 29	Male	13	1	0	14
	Female	10	0	0	10
30 - 39	Male	8	8	2	18
	Female	6	7	2	15
40 - 49	Male	2	2	8	12
	Female	4	2	2	8
50 +	Male	0	2	2	4
	Female	0	1	1	2
Total		43	23	17	83

The interviews were held largely at the participants' residences, or, in certain instances, at their work places. Some of the interviews were conducted in Yoruba and Ibo, because participants expressed a preference towards the local language rather than English. In total, there were 120 interviews, and each lasted about 60 to 90 minutes, and was conducted on a one-to-one basis. In some occasions, there were follow up telephone conversations for verification purposes.

Additionally, the research team had access to the Lagos State Ministry of Science and Technology and the Oracle Training Center. It was therefore possible to witness everyday operations and working practices and prepare field notes with the researchers' observations. Further, during our study, the internet-based infrastructure of Lagos State local government was still disjointed, with diverse websites still being under development and which, in many

² Yoruba is a Nigerian indigenous society.

instances were not functioning. Therefore, it was not possible to access archival documents and other sources online. However, offline access led to hard copy archival documents obtained directly from the aforementioned organizations.

Empirical Material Analysis

For the first stage of our analysis, we transcribed all the interviews and field notes and began with a preliminary examination of the data, which assisted the coding procedure. The coding technique was based on the classic grounded theory methodology because it allows the adoption of a coding scheme, in this case one that refers to the definitions and conceptualizations of culture, institutional theory, and regimes of work and control, while being a robust and systematic instrument for coding, by offering a tangible method for building relationships between codes and categories (Urquhart, 2012).

Open coding commenced by examining the data line-by-line, and identifying as many codes as possible. In several instances, some concepts were unique or newly emergent and could not be coded within extant codes. Therefore, these were placed into newly created codes for further examination. Next, during selective coding, open codes were grouped together. In essence, several open codes formed subcategories, being each others' variants and dimensions and/or properties of the core category (i.e., work practices), which helped us with scaling up our analysis (Urquhart, 2012). Table 2 presents an example of the process of analysis, where 'first-order data' refer to the interviewee's constructions, 'key idea' refers to the extraction of the quotation's essential meaning, and 'second-order concepts' to our own constructions, as derived from our analysis and extant literature (Walsham, 1995). Finally, the analysis began revealing the relationships among the various core categories and at the end of the coding procedure, the study's chains of evidence were developed; i.e., representative vignettes were extracted from the empirical material in order to highlight our study's findings and offer support to our arguments.

Table 2. Example of the Interpretation Process

	First-order data	Second-order concepts
Culture	<p>“When we arrived, it was really hot, there was a ceiling fan, files lying on desks and some chairs. There were some old computers also available for us to work with. We also found out how it feels when electricity goes. We did not have power cuts in USA as much as here and on such hot days” (Oracle employee 2)</p> <p>“You know how it is in a country like Nigeria, it is hot. I would tell and tell my manager, but he told me that he could not do anything. I had to go to work and work there even if it was hot. I also saw that the consultants would not be in. One day, at lunch time I asked my manager about them and he said that they were working somewhere else. Slowly I found out that they were in their rooms or somewhere else.” (Local end user)</p>	<p>The ‘quality’ aspect of a working place had a different meaning for the two different teams. In turn, the overseas team was provided with conditions that were more in line with what they were accustomed to, contrary to the local team. This gave rise to conflicts and feelings of resentment between the two teams.</p>
Regimes of Control	<p>“When providing training for using Oracle and operating the various screens, we found that paper notes were essential, which was something we wanted to discourage. Why? If anything went wrong, the users would want to refer to them and not pay attention to what we were saying. Then, if they wanted the notes that was another problem. Keep notes somewhere where you can refer to them. When we continued with the training, many of them would not have copies of the notes and wouldn’t even bother returning to their offices and getting their notes. Instead, they would want another copy. This caused a lot of frustration, wastage and delay for us and we wanted to get the project complete. Our deadlines, organized and structured way of getting things went out of the window” (IT consultant 1)</p>	<p>The behavior of the development team was being constrained by the behavior of the local team. There was an attempt to enforce the view of “<i>If it works for us, it works for them</i>”, so it quickly became obvious that there was a gap between what was originally designed and planned for and what was actually occurring. The IT consultant was the project’s owner and was used to having a very organized environment where participants were on time, had the required content and were willing to learn. This was not the case in Lagos State. He found out that participants were uncooperative, would cause delays and resist the proposed changes, leading to his frustration and jeopardizing his project.</p>

FINDINGS AND ANALYSIS

Our study’s findings refer to three levels. First, we refer to cultural differences and the different working conditions between the stakeholders of Lagos State government and the external associates designing the ERP. Second, we discuss work regimes and the regulation of control, and finally, we examine the development and the implementation of the ERP system through the lens of institutional theory. These are discussed next.

Culture-driven Conflicts: religion and working conditions

During the ERP implementation and while rolling out the e-government project, there were several issues, which both the overseas team (US contractors) and the local team (state

employees) had to face, as they were affecting their working practices. Namely, one of the major issues was that the overseas contractors failed to understand local customs, which primarily related to *religious matters*.

At the local level it was well known that many state employees were Yoruba, Hausa Muslims, which meant that, for them, Friday afternoon was a time of rest, and that, they were unavailable during that time, even when the overseas staff needed to consult with them. Frequently, this resulted in missing important deadlines and cancelled meetings, among other things, causing frustration to both sides. Further, the overseas contractors had to be generally mindful around the local team during the Ramadhan period³. A local IT developer mentioned that *“it was funny when we had a meeting for the first time in June/July during the month of Ramadhan. The room had food and the Muslims would not eat. The overseas team manager joked and asked: Is there something wrong here? Am I not getting something? The local person replied that it was the fasting period and so, lunch was not allowed for them then”*. Yet, the same person did give credit to the overseas contractors for refraining from eating during that meeting. He also added that, in future meetings, scheduled during the Ramadhan period, the overseas team manager made sure there was no food, or that meetings were not be scheduled around lunchtime.

Further, we uncovered issues pertaining to both *tangible and intangible artifacts* (Schein, 1985), What the overseas team remembered quite vividly involved the general working environment, which included frequent power cuts: *“When we arrived, it was really hot, there was a ceiling fan, files lying on desks and some chairs. There were some old computers also available for us to work with. We also found out how it feels when electricity goes. We did not have power cuts in USA as much as here and on such hot days”* (consultant from USA 1). The same incident was mentioned, while chuckling, by a local HR Manager, but with a different viewpoint: *“When the developers first arrived, it was a hot day and we had fewer fans. They had to get used to that. Then, after a little while, the power went out. That was something that we then mentioned one needs to get used to. After some time they got used to it, but it did disrupt ours and their work as the computers could switch off any time and if there was some training going on, we had to stop”* (HR manager 1).

³ Ramadhan is the ninth month of the Islamic calendar, during which adult Muslims fast from dawn until sunset (except in cases of illness) and refrain from liquids, food, smoking etc.

There were several different provisions available at the disposal of the overseas contractors. Namely, because the temperature in Lagos State is generally high and power cuts are frequent, there were additional fans installed at the local offices, but there were no contingency plans for black outs; these would be handled with power generators. Also, the overseas team wasn't accustomed to such rough conditions, so they had the option to use offices with air-conditioning when the conditions were too extreme. These offices would also include additional office equipment (e.g., white boards). Finally, they could also work remotely from their hotel rooms or apartments, where air-conditioning and electricity were always available.

These provisions however were available solely to the overseas team and were perceived as quite advanced and excessive by the local team, whose members were used to more rough conditions. As a result, this led quite quickly to resentment and mistrust. For example, a local end user commented: *"You know how it is in a country like Nigeria, it is hot. I would tell and tell my manager, but he told me that he could not do anything. I had to go to work and work there even if it was hot. I also saw that the consultants would not be in. One day, at lunchtime I asked my manager about them and he said that they were working somewhere else. Slowly I found out that they were in their rooms or somewhere else"*. Local employees felt that they should too have been provided with such equipment and facilities and, to release their frustration, they would cause delays to the project and additional problems. In addition, they formed a united front, aiming to continue with their norms, rather than adjust to the new demands that would ensure the completion of the project on time. In response to this, the overseas team sought to carry on with what work didn't involve locals, since, for them, there was a formal control mechanism, i.e., a time frame within which they had to fulfill their contractual agreement, driving essentially their work practices.

Work Regimes

In terms of work regulation, the two teams referred to different working practices and working styles in general. The issue that first surfaced was that of time. For the local, indigenous staff, overtimes were an unusual concept, as they worked strictly between 8.30 am and 4.30 - 5.00 pm. They enjoyed a not so formal working style and their attitude was rather relaxed and casual. They also had tea breaks and, in certain instances, long lunch breaks were the norm, suggesting informal control mechanisms. This was not the case for overseas staff members; they were very

focused and highly organized in their ways. According to their contract, there were specific deadlines for the implementation of the ERP. As a result, they worked long hours during the development and implementation phase in order to be on time with their deadlines. However, this suggested that, oftentimes, it was difficult to always liaise successfully with State officials. In turn, this caused additional delays in data gathering. In addition, there were no established processes for data gathering and, in some instances this caused further delays, primarily due to skepticism and fear.

In addition, local working practices had an impact on placing and receiving orders and services. This was more significant when an order was placed, or expected to be delivered, late during a Friday. After a given time, local government employees, businesses and other third-parties wouldn't receive such orders or even process them, but rather resume work on them next week, which in turn caused delays and setbacks for the overseas contractors. Next, if an order were scheduled to be delivered a given day, in reality it would be delivered a few days later. When the order would be finally received, the overseas team member would note the delay and sigh with relief; however, the locals would commend him for receiving it earlier or on time, because, typically, receipt would take much longer if dealt with by the local staff. Finally, meetings and meeting times also allowed the emergence of cultural and work practices differences. When appointments were made, overseas contractors were on time at the appointed location; in contrast, the local team was late, offering no apologies. On such occasions, the overseas staff would be informed that this was the norm and, although not mentioned explicitly, it was implied that they had to get used to it.

Regulation of Control

In terms of regulation of control, we examined the management practices of the local managers and the sense of ownership of the project by the local employees. Many local administrative employees considered the role of a champion as imperative. Despite the governor being recognized as the champion of the project, our findings revealed that the involved parties felt that someone from within the departments would have been a better choice because (s)he would understand the various individuals' needs and requirements. An HR Manager commented: *"Some groups of people sit down somewhere whether consciously or unconsciously, whether good or bad, think of all kinds of projects and while sitting in the comfort of their office, they approve the*

project and they send it out to be done. I am the one that is going to use the system. I should have a say from the planning stage. I am not saying they have to involve everybody in every government policy, but things like that you need to have two or more end users involved. When you sit somewhere and you ask a project to be executed and to be used by end users, I do not think it works like that. Because of this I do not want to use this new system. If they had champions it would have been better, people would have responded better to using the system” (HR Manager 1).

Indeed, it was quickly discovered that, during the implementation of the project there was conflict among local stakeholders because they had been excluded from the design phase. While local employees were handling all IT projects, this particular one, was entirely handled by overseas contractors. In addition, overseas contractors would handle the project until the locals understood the system entirely and were in position to use it effectively. Therefore, when the overseas contractors arrived in Lagos State, there were subtle conflicts between them and the local employees. While the majority of local employees understood that the new system would require some external expertise, they appeared uncooperative and resisted the upcoming change, mostly out of fear for their jobs, and because they had already formed a negative opinion regarding the contractors and the project, disregarding the benefits of the new system.

One of the overseas consultants recognized the detachment between the two teams: “Unfortunately the higher level authorities did not involve the relevant stakeholder and this is another challenge, because there has been no acceptability since there is no ownership from the business user”. In other words, both sides recognized the existing challenges, without being able to tackle them, which led to a communication breakdown between the two teams. In turn, this created a division of labor in the form of a ‘them’ and ‘us’ situation, resulting in a situation where the locals didn’t want to cooperate with the overseas team, which is often reported in similar studies (e.g., Leidner & Kayworth, 2006).

Eventually, as the local employees started grasping the system’s functionalities, the overseas team began handing over the project. This gave rise to a different type of conflict that led to resistance to the proposed changes. Specifically, the local employees felt that the new system, rather than leading to improvements, would instead lead to lost jobs. It was thus hard for them to exhibit a collaborative and positive behavior. Furthermore, due to increasing costs and the

cultural clashes between the two teams, the council decided that the local employees should be assigned to the new information system; however, up until that point, there had been no provision for the employees' training, which led to mixed feelings towards the entire initiative: *"It has added to my workload and slowed down the efficiency for now. Presently you see me doing double work. I still use hard copy files of documents particularly when information is not available"* (Local Project Manager 1). Further, it was still difficult for some to realize the necessity of the system: *"Why do we need this system? It is not going to be any good"* (Local Accountant). Others discussed that the lower level employees were in fact aware of higher level managers not being very interested in the training programmes and that they had decided on including them to the project without considering individual needs and requirements: *"Our top managers don't show any interest in Oracle training. They were not involved in the training program, though they should be the core training subjects because their background means they have knowledge on information systems and information security"* (IT manager 1). Another super user from the local team commented: *"The Information Centre only organized several simple lectures for us. Almost all the contents were about technologies. How could we understand that? It is supposed to be aimed at the IT staff, not us. We need to know about how to get passwords, how to deal with the interface, keys, codes and such. Besides, we were very busy getting ready for all these new changes. Arranging software, job changes. We did not have time."* (ERP super user 1).

A different perspective to the regulation of control derives from the distinction between the organizational levels. Within the Lagos State government, lower-level employees have travelled less, are usually from the Hausa and in some cases, Yoruba communities, and of the Muslim faith. This entails by comparison more rest days for religious reasons, and that general they are more used to local norms and customs. Contrastingly, higher positioned individuals have typically studied abroad, come from the Igbo (or Ibo) or Yoruba ethnic group and are usually of Christian faith. It could thus be said that managers and developers belong to a wealthier, educated system, and may often appear unaware of organizational change issues, leading to distinctions and 'divisions of labor' between the local and overseas staff.

To summarize, there was an increasing need for higher-level individuals to be more involved in the project, act as its champion, offer additional support and be informative regarding the impending changes. What was also apparent is that the regulation of control affected the

regulation of work practices, impeded employees from developing a sense of ownership of the project, and, is eventually an imperative factor that needs to be considered.

Development and Implementation of the IT project

During the development and implementation of the ERP system, there were significant disparities between the different project management methodologies followed by the overseas and the local teams. While developing the system, the overseas contractors pursued a structured approach, because the US-based project management organization had made the case that such an approach would be beneficial for the project, and that it could facilitate change. This method was indeed accepted and pursued, and the overseas team developed standardized documentation, in the form of online and hard copy manuals, meant also to be used for the various audit checks. However, the local team followed a more unstructured approach to IT development and project management, which resulted in the overseas contractors' efforts being constrained by the local team's working practices: *"When providing training for using Oracle and operating the various screens, we found that paper notes were essential, which was something we wanted to discourage. Why? If anything went wrong, the users would want to refer to them and not pay attention to what we were saying. Then, if they wanted the notes, that was another problem. Keep notes somewhere where you can refer to them. When we continued with the training, many of them would not have copies of the notes and wouldn't even bother returning to their offices and getting their notes. This caused a lot of frustration, wastage and delay for us and we wanted to get the project complete. Our deadlines, organized way of getting things went out of the window,"* (USA IT consultant 2). Eventually, such incidents led to a shift of power from the development and project management teams to the local teams.

Due to the new working patterns, some local employees adopted new working patterns and, abandoned their old work habits; thereby, adopting the new, structured ways of project management. However, some others exhibited resistance to the changes, causing delays and frustration within the teams. Ultimately, these issues were resolved through the mediation of an older, local employee. He was a local qualified accountant in his fifties, who realized the importance of having a structured IS development and project management methodology. He also began taking more interest in the project, which was the breakthrough both teams needed, and he was acting as the 'rock of discipline' (Nicholson & Sahay, 2001); namely, he would calm

down the overseas contractors whenever delays and frustrating events occurred, and he'd relay knowledge and information in a more informal manner.

However, upon the departure of the overseas contractors, the local team begun abandoning the newly adopted working practices, or adapting them to their ways, which a current super user and end user termed as *"our way of working, which is the right way"*. This gave rise to a form of division within the organization and a subtle form of corruption. Here, two issues need to be highlighted. The first involves the auditing process. While the American teams were located in Lagos State, there was a structured form of documentation and specific processes concerning the development and implementation of the ERP system. When the American teams departed, the local teams largely returned to the previous processes and the familiar 'old ways' of doing things. This, combined with the distinct indolence of Nigerian organizations, led to inefficiencies; therefore, to receive the certification from the auditing process, networking was sought once again. The second issue concerns the individuals who received training. Generally, those who did receive training were from wealthier backgrounds, and in some instances, they were educated. Another group of individuals, who secured a place in the teams and received training, belonged to those societies where nepotism existed. In short, those who did not belong to any one of the aforementioned groups, and wanted to work with the 'elite' groups of users sought their participation through networking and other, similar means, which showcases the existence of corruption and the role of politics.

DISCUSSION

Public sector e-Services are considered essential for all countries, developed or developing. However, when considering the potential of ICT, developing and developed countries cannot be treated in a similar vein, particularly due to differences in their dynamics and cultural values (Venkatesh & Sykes, 2013). This was also found earlier by Walsham (2002) when it was suggested that Hofstede type studies treat cultures as homogenous; thereby ignoring cultural attitudes and views, as well as work patterns. Therefore, following a social constructivist approach allowed us to better understand how the implementation of e-services in Nigeria meant changes to the working practices of both the local and overseas teams, affecting in turn the development and implementation of the information system.

Our findings show that when a developing country, like Nigeria, seeks to adopt e-services and information systems, it is crucial to be aware of and understand, besides the technological aspect, the cultural, the political and the power aspects (regiments of control), and work practices as well. Previous studies of e-government (e.g., Carter & Weerakkody, 2008) have shown that culture is an important aspect within developed countries. Along these lines, we have extended the concept of culture in order to consider the values and work practices of individuals and also the regimes of control that exist across public sector organizations, which include both national and organizational perspectives. Our findings show that culture has a strong impact within the context of developing countries. The cultural analysis revealed that older individuals and those who travelled abroad are more respected than others. In addition, our findings show that, while some issues are for granted in developed countries, in developing ones they may be of immense importance. For example, the lack of office furniture and equipment, power failures and poor working environment is unacceptable for western developed countries, whereas in developing ones may be the norm. More importantly, however, our findings show that working practices may be strongly affected by religious practices. While in developed countries, cognition, language and its relationship with technology can be key (Kallinikos, 1999), but in developing ones, religion may be an important factor (McGrath & Maiye, 2010).

Next, our study illustrates that IT can distribute, redistribute or undermine power, through a structured development, new project management methodologies or new processes and performance measurements (Dhillon, Caldeira & Wenger, 2011). In our study, the effect 'power' has surfaced through formalized, disciplined working practices, which also dictated the provision of 'state-of-the art' facilities. Further, IT allowed certain individuals to demonstrate their potential, something that was not possible before, as it happened in the case of the local accountant, who eventually acted as the champion of the project. In addition, we have showcased that divisions across the communal, caste, community, linguistic groups and basic resources system may occur within the workplace, due to segregation on the basis of wealth, education and policies, because these inadvertently create elite groups. As a result, some local individuals, who did not meet the education and wealth requirements, resorted to politics and corruption in order to subscribe to the aforementioned criteria and work with the 'elite'.

Finally, as our findings show, local employees attempted at first to adhere to the 'western' ways of working. This suggests that the specific IT project, which had been made possible by the

support of international non-government organizations, led to “socioeconomic improvements through locally situated action” and brought positive transformations (Avgerou, 2010). However, when the overseas team departed, the locals fell back to their old practices, meaning that these transformations were not entirely embedded. Similar findings have been reported by Abubakre et al (2015); in that case, prior to the implementation of formal controls, there was partial adaptation, acceptance and routinization. In light of this, it would be pertinent to focus more on examining the aftermath of such implementations, i.e., on the later stages of the project and whether information systems continue on operating and being used as designed and implemented, rather than on how and why they have been used, in order to investigate the added value for their stakeholders.

Implications for Theory and Practice

As our study shows, when it comes to IT projects that involve both local and non-local staff, the views of both groups are pertinent for providing information and knowledge, because each group holds different interests to the project and are characterized by different cultural and value systems. This is an important implication for the development and implementation of a large IT project, and allows us to make ‘sense’ of complex situations. Next, ICT are an integral part of e-government and their relationship to culture also needs to be accounted for. To be more precise, e-government entails that there is some sort of infrastructure for the delivery of e-products and e-services, while culture when investigated in conjunction to technology may be examined as ‘culture in technology’, ‘technology culture’, and ‘cultural values towards technology’ (Hasan & Ditsa, 1999). Our study focused on the latter and it differentiates itself from other e-government studies (e.g., Jovacic, 2005) by considering how cultural thoughts and actions are shaped when interacting with IT. In this sense, it has provided a unique contribution to the e-government and culture research areas. Finally, our study makes a substantial contribution in the literature of ICT and developing countries, by considering cross-cultural issues during the development and implementation of information systems and providing rich descriptions for the arising conflicts on the basis of distribution of power, working practices and cultural values, which differ between and among the involved actors. As far as industry is concerned, we have emphasized the invisible social and religious norms that emerge within the local context of a developing country, and which, too, need to be accounted for when managing and developing IT projects. In other

words, our study has provided a clear explanation of how concepts, such as culture, control regimes, and religion, may have an impact on the working practices and sense of ownership of an IT project. We consider that this is a particular strength of qualitative studies, more so of interpretative ones, which usually provide rich insights into the complexities of organizations and people. For the public sector in particular, our research shows that there are different expectations from the various groups involved. The various employees have certain expectations from their government and the implemented project, while the government on the other end holds expectations from them. In turn, these expectations impact the adoption process and the acceptance of the system and in all cases, the project need to be championed by a senior member of staff or a generally respected employee in order to be well received.

CONCLUSIONS

Our study examined the development of a public sector e-service project in Lagos State, through the themes of culture, and regimes of work and control. We have shown that, despite the close collaboration of the overseas and the local teams, divisions of labor or conflicts do emerge, which the locals overcame through politics, networking and corruption after the departure of the overseas contractors. Further, while the overseas team attempted to employ a structured development and project management approach, this was later customized to account for the local situation once the local staff took over the responsibility of the project. Our findings also illustrate the prominent role of culture and power in a developing country, and how these concepts need to be emphasized for the development and implementation of an IT project.

Our study has certain limitations. First, it is qualitative and therefore its findings cannot be generalized widely. Future research can overcome this by either following the quantitative approach or by interviewing even more participants from diverse societies in Nigeria and for a longer time period. Nevertheless, if one considers the specific case of IT implementation as one of the many reform cases, our findings can be generalized in a broader way and considered as applicable to other contexts, where different types of reforms are introduced in the public sector and where different cultures may clash. Next, we undertook this research at a time when e-government was still under development and was expected that citizens' awareness and expectations were still evolving; therefore, adoption and acceptance of the project were, too, still forming. Future studies on e-government should examine this perspective as well, beyond

focusing on the policies deployment and development, and the identification of factors affecting e-government adoption.

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