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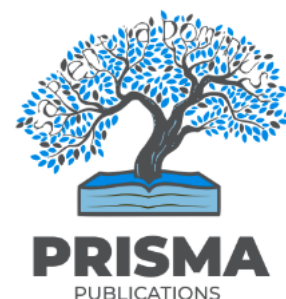
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APPLYING STRUCTURATION THEORY TO ELECTRONIC GOVERNMENT FOR IMPROVED GOVERNANCE IN KENYA'S COUNTY GOVERNMENTS

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ABSTRACT

The Kenyan government in this modern age has made strides and invested to embrace electronic government (e-government) in almost all ministries to enable speedy service delivery and enhance transparency and accountability by eliminating inefficient processes and bureaucracies as much as possible. However, some professionals lack Information Communication Technology (ICT) skills to manage various projects. The general objective of this study sought to conceptualize structuration theory into ICT training as a requirement for e-government in Trans Nzoia and Kisumu county governments. This paper assesses the ICT training needs among staff working in Trans Nzoia and Kisumu County governments. Interviews and Document reviews from both case counties and national governments are the data collection methods. The study contextualizes Structuration theory into ICT being a theory from the field of sociology and a constructivist paradigm approach is employed. Purposive sampling technique is used targeting participants in the two county governments. Thematic Analysis's procedures and processes are adopted for data analysis. The findings contribute to knowledge in that structuration theory is conceptualized into ICT; on Structures, Signification was operationalized into ICT implicit and explicit knowledge; on Interaction, Meaning was operationalized into ICT information and Communication dimension into Information dimension. I recommend a comprehensive and coherent approach to ICT training and capacity building at all educational tiers, country wide roll out of ICT infrastructure and its support for e-government to be fully embraced.

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1 Introduction

WSIS states, “Everyone should have the necessary skills to benefit fully from the Information Society [32]. Therefore, capacity building and ICT literacy are essential”. Thus, it is important to look into sector policies and see how they intend to address human resource training, initial and continuous teacher development, as well as research, evaluation, and monitoring [32].

According to [26], the government of Mauritius has inclusiveness approach and a re-engineering of the e-government services toward more citizen-centric delivery require an aggressive ICT culture promotion program. Mauritius fares well in ICT literacy outreach as a result of a comprehensive and well-thought-out strategy in ensuring that not only the relevant ICT literacy/proficiency programs are offered but also free ICT facilities with broadband access are made available throughout the country.

Singapore, as it adheres to a developed strategic framework, has mobilized available human and capital resources to build new capability and capacity to sustain the operation of e-Government portal [17]. Sri Lanka, an objective of the ICT Human Resources Development Programme is to inculcate skills and competencies pertinent for the management of e-government projects [11].

In a study by [31], where almost all African countries were involved, Kenya planned to “Address issues of privacy, e-security, ICT legislation, cyber-crimes, ethical and moral conduct, copyrights, intellectual property rights and piracy”. This was the first policy to actually group these issues together with the intention of addressing them by setting up an e-security structure. These steps ensured ethical behavior in the ICTs. Mozambique and Nigeria are working in the same light. It also planned to address human resource development and introduce ICT in the all levels of education, training teachers in ICT, and attracting and retaining skilled human resources. Further it intended to ensure affordability and access to ICT nationally to offset all types of disparity by allocating enough resources to ICTs, developing the requisite infrastructure and motivating service providers to cover rural and under-served areas.

Kenya needs to grow sufficient high-end skills to become regional and globally competitive. In this regard, the ICT Authority will develop skills the following areas: ICT Authority internal technical capacity, public sector digital literacy, ICT Leadership and management and citizen digital literacy & skills development. To achieve this, ICTA will collaborate with academia and industry to develop structured ICT training for professionals geared towards building technical expertise with high end skills, competencies and experience required to implement flagship ICT projects. Expected Outcomes are: increased access to public services, successful resourcing & implementation of ICT projects, improved reliability of electronic public services and increased ICT investment in Kenya [16].

Kenya also has Government Training Institutions like the Kenya School of Government (KSG) Training institutions located in Nairobi, Mombasa, Eldoret, Embu, Baringo, and Matuga. The mission of KSG is to contribute to the transformation of the public service by inculcating national values and developing core skills and competencies for quality service delivery which leads to the vision of excellence in public service capacity development [20].

2 Synopsis of Structuration Theory

Anthony Giddens, contemporary British is regarded as one of the worlds’ most cited sociologists [4]. Rather than perpetuate the intellectual divide between the subjectivists and objectivists who study information technology, authors argue for an integration of these positions. It is believed that the phenomenon of IT needs to be examined seriously as part of a more general theory of social structure and action. Giddens theory of structuration provides for such an integrative theory. In Giddens’ theory of structuration, the opposition inherent in the assumption of mutual exclusiveness falls way to an assumption that social reality is constituted by both subjective human actors and by institutional properties. Human action on one hand constitutes the institutional properties of social systems while on the other it constitutes institutional properties. As [27] note that: “Through being drawn on by people, pattern and shape interaction. Structures themselves are however reproduced only through interaction. Explanations of social phenomena must thus refer to both the role of human action and the effects of existing institutional properties. The approach of Giddens’ structuration theory argues that action and structure operate as a duality, simultaneously affecting each other. Giddens defines structure as ‘rules and resources recursively implicated in social reproduction; institutionalized features of social systems have structural properties in the sense that relationships are stabilized across time and space’. The structuration-type theory advances our understanding of the use of ICT in the government sector as it provides a means of handling the complexity of the interactions between citizens, organizations, the government and other industry sectors, and the national and international context.

In his argument, [7] opines that structure is similar to language. While speech acts are situated temporally and contextually and always involve dialogue between humans, language exists outside of space and time. Language is a condition for achievements of dialogue and language is sustained through the ongoing production of speech acts [7]. Social actions are temporary and contextually involve human interaction. Social structures conditions these social practices by providing the contextual rules and resources that allow human actors to make sense on their own acts and those of other people.

The duality of structure is an important concept in structuration theory. The theory explains that “structure” involves both the medium and outcome of the conduct it recursively organizes and that structural properties do not exist outside of human actions implicated in the production and reproduction of social systems [10]. The concept is important for information professionals because it suggests that everyday professional activities are not merely the performances of certain skills or the accomplishments of certain tasks, but also the production and reproduction of “structure,” and that these professional activities are influenced by and affects professional standards, policies, and practices. For instance, cataloging in academic libraries is a mundane activity that conforms to explicit rules like the Anglo-American Cataloging Rules (AACR) and organizational practices and norms. Cataloging maintains and reproduces the authority of Library of Congress, AACR on one hand, and the organizational practices and norms on the other.

Conceiving of structure in this way acknowledges both its subjective and objective features. Structure does not merely emerge out of subjective human action; it is also objective because it provided the conditions for human action to occur. Structure thereby provided the means for its own sustenance and structure and action constitute each other recursively. Structuration theory recognizes that “. . . man actively shapes the world he lives in at the same time as it shapes him” [9]. This dialectical interplay between the subjective and objective dimensions of social world eliminates the need to choose a side in the intellectual debate dividing the subjectivists and the objectivists.

On empirical studies pertaining modifying structuration theory, [22] identified four important interactional influences of IT within organizations. They stated that: Information technology is shaped by humans within the organization; Information Technology both facilitates and constrains human action thus becoming a part of the schemes, facilities and norms that determine the structures in the organization; Design standards, codes, and norms embedded in the technology influence human interaction with the technology and Information Technology mediated interaction affects the structures existing in any organization. From the above influences, issues regarding the complex interactions of technology and people within organizations arise.

According to AST, adaptation of technology structures by organizational actors is a key factor in organizational change. There is a “duality” of structure [23] whereby there is interplay between the types of structures that are inherent to advanced technologies (and, hence, anticipated by designers and sponsors) and the structures that emerge in human action as people interact with these technologies. In detail, AST provides a model that describes the interplay between advanced information technologies, social structures, and human interaction. Consistent with structuration theory, AST focuses on social structures, rules and resources provided by technologies and institutions as the basis for human activity.

In this empirical study, the author obviously has contributed much to the less travelled road of applying ICT in structuration theory. However, the issue of using advanced technologies is subjective. Technology is believed to change drastically rendering the advanced one today being obsolete in a shorter period. So, at what point is advanced technology really advanced?

Despite criticisms by scholars as stipulated above, the researcher believes that structuration theory complements this study due to the rules and resources (Structures) available and established by both county and national governments and the actors (employees) who run and implement ICT at the Trans Nzoia and Kisumu County governments. One major reason for choosing this theory is that there is need to apply such theories to new fields like the current modern technology, which is dynamic, complex and continuously changing day by day. Its use mostly in sociological arena only limits application of this theory that may contribute invaluable knowledge in other reputable fields. It is time to “put Giddens into action”. It is from the foregoing statements that the researcher resisted adopting the traditional theories used by many old and emerging authors doing research on ICT. Secondly, this study employed structuration theory because as evidenced by [22], it eases a richer understanding of the issues that pertain to the use and management of Information Technology in organizations/institutions.

The study, therefore, seeks to contribute to theory by highlighting that Giddens’ structuration theory can be contextualized and operationalized to suit ICT field by embedding KM in government yielding good governance.

3 Problem Origination

The [18], states that county citizens are entitled to timely access to information, data, documents, and calm- information, which is relevant. In addition, county governments should have a reasonable access to the process of formulating and implementing policies, laws, and regulations, including the approval of development proposals, projects and budgets, the granting of permits and the establishment of specific performance standards. Knowledge through training is becoming an important factor in the economy, more important than raw materials, capital, labor, or exchange rates [5]. As much as the Kenyan government is investing heavily on ICT, training must be a prerequisite to manage and maintain the modern systems that are associated with dynamic changes over time. Kenya needs ICT professionals to take advantage of established ICT infrastructure.

It is imperative to note that, there is limited research on contextualization of structuration theory into ICT training field. Also, the fact that Kenyan new constitutional dispensation is still in its initial stage of implementation having commenced in 2013 implies that prior studies on governance focused on the national government rather than county governments. It is from this backdrop that this paper is studied.

4 Methods

4.1 Research Design

This study adopted a qualitative case study research design. The strengths of a qualitative design is that it emphasizes people's lived experience of a phenomena. A case study was adopted because a county is bounded by time and place (boundary) and this paper was a multiple case study.

4.2 Participants

Using purposive sampling method, we interviewed a sample of fourteen top and middle level management employees from both counties. They were eight males and six females. A pilot study of two participants was done and they were isolated from the final research. All participants were employees with daily duties using ICT devices. Secondly, the participants must have been employees of Trans Nzoia and Kisumu counties or national government employees attached to these counties.

4.3 Data Collection Methods

Interviews, document reviews and observations were used as data collection methods. Face-to-face interviews and observations were the primary data collection methods. In-depth interviews were conducted and audio recorded by use of a Laptop and later keenly transcribed into word documents. For observations, notes taking were done in the event of observations. Document reviews are secondary sources of data collections. They represent variety of non-personal documents such as minutes of meetings, agendas of such meetings and office memos. In the Kenyan context, government circulars, specific ministry master plans and any other official correspondences were perused to give more information on the use of ICT innovations and or applications.

4.4 Procedures

Consent was sought from Trans Nzoia and Kisumu county governments, particularly the offices of County Commissioners and County Directors of Education of both counties respectively. Data collection started immediately. Top and Middle level management employees from both counties were targeted on a voluntary basis. Confidentiality, the principle of anonymity and the right to de-briefing to participants are examples of ethical issues spelled out before interviewing commenced.

4.5 Data Analysis

Thematic Analysis which is a type of qualitative analysis was applied. [[19]model of Thematic Analysis was adopted comprising of three link stages: data reduction - "A form of analysis that sharpens, sorts, focuses, discards, and organizes data in such a way that "final" conclusion can be drawn and verified"; data display - "displaying the data in a variety of ways e.g. tables, figures and theme maps" and data conclusion - "ideas to generate meaning from the data and they include: the notation of any patterns or themes / Grouping or establishing categories of 'information that can go together".

4.6 Phase of contextualizing Structuration theory

(Refer to section 2 above for details on Structuration theory)

Figure 1 below is the original Structuration theory by Giddens, a renowned sociologist. This study proposes to remodel this theory in context of Kenyan county governments.

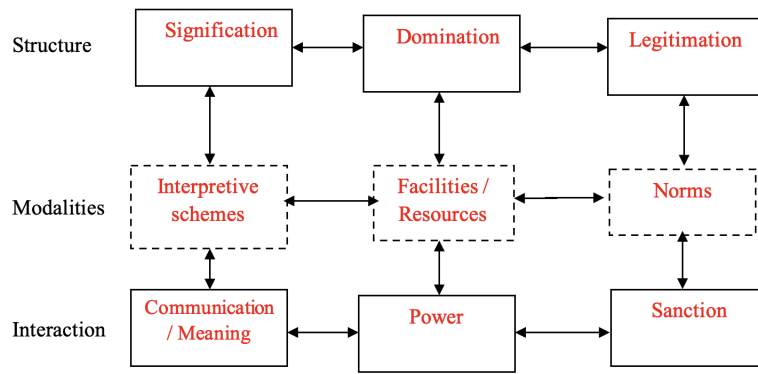


Figure 1: Information dimension (Contextualized Communication dimension)

Phase 1: Knowledge Management (KM) as an Interpretive scheme

For a proposed contextualization of Structuration theory in Figure 1 above, the researcher built on what Giddens calls Communication dimension: the structure of Signification, modality of Interpretive schemes and interaction of Communication in depth. Relevant literature was reviewed and Communication dimension is contextualized to Information dimension to match ICT adoption in government perspective. Use of red color depicted original items from theory and blue were contextualized elements.

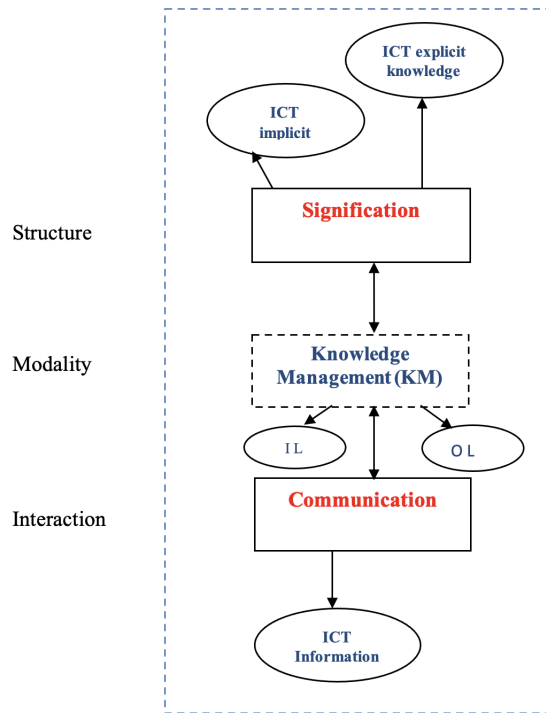


Figure 2: Information dimension (Contextualized Communication dimension)

Key: IL – Individual Level OL – Organizational Level

According to [11], members of organizations construct their ‘memories of the future’ in conversations. ‘Memories of the future’ are actionable, future-directed ‘plans’ [18] that have a bearing upon decision-making and action-taking. As plans are stored in our stock of knowledge they exhibit the same logical structure as experiences. The ‘units of talk,’ are conversations exhibiting observable beginnings and endings in time space. Such shared moments of regularized ‘co-presence’ that actors routinely utter their anticipations, worries, plans, and so forth. While conversation is regarded as the basic mode of

interpersonal communication [30], the latter is a more inclusive concept (Giddens uses the term ‘communication’ rather than ‘conversation’). Personal interaction always involves the use of non-verbal cues to convey meaning [2]. Giddens further stated that meaning is constituted and conveyed neither through communicative intent nor through differences in sign systems, but through language use. Unlike the first two, the latter is contextually contingent and contexts of communication are created and sustained by actors who draw upon mutual knowledge in the form of shared interpretative schemes. These schemes comprise the ‘generative rules’ which allow for the uptake, upkeep, and termination of communication in interaction [7]. As rules of conduct, they simultaneously enable and constrain communicative encounters among social actors. Their existence, however, is virtual [10]. These rules have a bearing upon our conduct and are reproduced for future use. This implies that communicative action and structures are mutually constitutive and mediated by shared interpretative schemes. The communicative dimension of the social practice of foresight in organizations can be analytically distinguished from the political and normative dimension.

In contextualizing this theory, there was need to understand Interpretive schemes. It is defined by [8], as the “standardized, shared stocks of knowledge that humans draw on to interpret behavior and events, hence, achieving meaningful interaction”. The researcher provided a new modality of KM as a specific interpretive scheme in the discussed Communicative dimension. The choice of KM was informed by [12] who advocated that in the age of knowledge economy, the distribution of knowledge is in actual fact done through improved ICT infrastructures and the structural well being of organizations (government for this study).

KM has several definitions but the following are deemed by the researcher to be befitting this study: [13] defines KM as getting the right information to the right people at the right time, helping people create knowledge and sharing, and acting on information. [14] states that KM is the creation, extraction, transformation and storage of the correct knowledge and information in order to design better policy, modify action and deliver results. KM according to [3] is a process of knowledge creation, validation, presentation, distribution and application.

Modern KM practice emphasizes the creation of new knowledge and the timely application of organizational knowledge to maintain strategic advantage. It assumes that systems exist within an organization to support knowledge creation, and that relevant knowledge from internal and external sources has been recorded or indexed in such a way that it can be retrieved and used. Organizations have to be prepared to abandon knowledge that has become obsolete [6]. Effective management of intellectual capital is a critical issue facing organizations in today’s global and information-driven economy. KM is not about managing knowledge, but rather managing and creating a corporate culture that facilitates and encourages the sharing, appropriate utilization, and creation of knowledge that enables a corporate strategic competitive advantage [1]. This study focuses on government and it is no exception to embracing KM to be able to serve her citizens well while applying the best practices in ICT governance.

Interactions occur between different knowledge levels and the social context [15]. In this study, IL refers to the government employees and the OL is the government interacting with ICT as an enabler or constrain. These two levels are also entrenched in the contextualized structuration theory as shown in Figure 2 above. The label ‘implicit’ refers to knowledge that cannot be expressed in words, such as skills that are to be observed or culture that is to be ‘sensed’. Norms and values, beliefs, habits and assumptions belong to the category implicit organizational knowledge.

The label ‘explicit’ refers to knowledge that can be expressed in words, and, hence, can be considered ‘information’. [21] asserts that this knowledge can be taken as codified knowledge that can be shared with others using a formal, systematic language. Implicit knowledge can become explicit knowledge (explication), as well as explicit knowledge can become implicit knowledge within or between different levels (implication). ICT use enables explication from individual to organizational levels of skills and experiences.

ICT applications are often implemented and used in order to increase efficiency and effectiveness of processes of sharing knowledge. In order to achieve these objectives, messages must be understandable and comprehensible, dealing with explicit matters [21]. For this study, Knowledge Management Systems (KMS) is a good example of ICT applications that can be used by governments to share and store knowledge for the structure of signification.

According to [30], nations in Sub Saharan region, lack KM, leading to low level of knowledge and information sharing (poor government) in the civil service. Today, nobody seems to know who in the Kenyan civil service needs what knowledge, when, and how such knowledge should be delivered. The top-level management in the Kenyan civil service needs to be aware that knowledge can be generated within the various departments of government and employees already own some knowledge that may be required. In Kenya and SSA’s nations, members of the public are hardly involved or consulted in matters of public policy formulation or implementation. This is directly related to a culture of secrecy that is still prevalent in government services. This is exemplified by the Swahili word for government, which is *serekali* and which when translated means “top secret” [24]. Suggestions from [27], state that KM programs may contribute to creating renewed faith in government bodies through the creation of an interactive government engaged in wide dialogue with an interactive citizenry.

It is evident today in Kenyan government that information and knowledge are acquired instantly by citizens, for instance, through Radio, TVs and online connections. The access to information Bill 2015 proposed citizens right to information from

the state [18]. ICT use can enhance this anytime and anywhere 24/7. This is supported by suggestion that KM can drastically improve service delivery in any civil service [25].

5 Study Findings

The guiding theoretical framework for this study was Structuration theory which emphasizes that structures enable and constrain three basic aspects of (inter)action: Communication, the exercise of Power, and the Sanctioning of conduct. Each of these three basic activities relates to a particular structural dimension: Communication to the structure of signification, Sanctioning to the structure of legitimation, and power 'plays' to the structure of Domination.

Structuration theory is conceptualized into ICT; where on Structures, Signification was operationalized into ICT implicit and explicit knowledge; on Interaction, Meaning was operationalized into ICT information and Communication dimension into Information dimension (See Figures 1 and 2 above).

In concurring with study findings, ICT training is linked with Interpretive schemes defined by [8] as the "standardized, shared stocks of knowledge that humans draw on to interpret behavior and events, hence, achieving meaningful interaction". It is through ICT training that humans share stocks of knowledge and stored, for instance, by Knowledge Management for future use. There was evidence of training, seminars, workshops and capacity building organized events periodically by national government for employees.

6 Conclusions And Recommendations

I have shown that the government of Kenya has made progress in ICT training and capacity building initiatives considering that Kenya is relatively young country and our counties in particular that were established in 2010 effectively became operational only in April-2013. Hence, the full potential of ICT has not been realized to date. Although efforts have been made towards ICT training, there is need to focus on the youth who form the largest percentage of the Kenyan population. The government of Kenya is making positive strides on ICT implementation longitudinal studies are required.

In recommendations, ICT Training and capacity building should be implemented from primary schools, secondary, tertiary colleges and at university levels. This means that the government through Ministry of Education should come up with ICT curriculum that addresses the above levels of training and capacity building in a systematic and coherent manner. The government should emphasize the need for employers to continue training and building capacity of their employees. The solutions to these issues require goodwill by leaders in government, employees, citizens and the private sectors.

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