

Digital Culture versus Change

Ng'ang'a Elijah (PhD-fellow- Kenyatta University-School of Business)

ABSTRACT:- The study of digital culture is a multi-disciplinary field that spans many different methodologies, frameworks and philosophies that explore the relationship between culture and technology. The following is a discourse in digital culture research using the philosophy of scientific revolution (Thomas S. Kuhn) as a key source for understanding the current state of the emerging field.

Information Revolution, Scientific Revolution

Electronic technology that developed out of the 20th century enabled the cultural prevalence of mass media, in the form of cinema and television and later digital media which provides cultural researchers and philosophers complex new frontiers to explore. Marshall McLuhan in *The Gutenberg Galaxy*¹ and Martin Heidegger in *The Question Concerning Technology* discuss the idea of media and technology as an extension of mankind that creates new capacity and influence, both intended and unintended, and have sought to understand them in a cultural as well as philosophical context. A core philosophical problem of technology is that, much as language transforms the world, so do the extensions of man, resulting in a change of meaning. Ernst Cassirer saw technology as an attempt at making sense of the world through symbolism and creating meaning through spontaneous action. In the digital context, this changing of meaning is profound and reaches far into everyday life from the creation of online communities to digital identities that function as citizens of the global village, effectively changing the way we identify with ourselves and the world around us. As McLuhan predicted, the digital age has brought about electronic interdependence and a change in cognitive and social organization including the transformation of media structures, modes of communication and identity narratives.

It is in this background that the discourse below will anchor its arguments on as the concept of digital culture evolves.

I. INTRODUCTION

1.0 Background of the concept

There is now a broad consensus that technologies worldwide provide an unparalleled opportunity for the dissemination and sharing of data and knowledge, for facilitating relations among individuals and developing economic activity (Meier, Schuppan & Ben, 2010). The growth of the sector also contributes very significantly to creating jobs and businesses, and to innovation and overall productivity: digital technologies are continuing to spread rapidly. This growth of “digital production” and its economic potential has led to the development of a dominant and remarkably consensual public discourse about the “technological miracle” or “digital paradise.” One characteristic of this discourse is that it is shared by individuals and businesses and also communicated by a large majority in the academic world (Chinn & Fairlie, 2004).

According to DiMaggio and Hargittai (2001), the “culture” of technology varies greatly from one country to another. Thus, simply among European Union countries, the presence of computing equipment in the home ranges from 94% in the Netherlands to 62% in Italy, with an average of 73% for the Member States. The level of frequent use of the internet varies from 92% in Sweden to 49% in Bulgaria. In France, a country where an average of 76% of households has an internet connection, disparities in access and use are very marked. Today, according to the World Bank, 75% of the world’s population has a mobile phone, and there are apparently five billion subscribers to mobile services in developing countries (Govindarajan & Trimble, 2010). However, on comparing the adoption of digital culture in public and private institutions, public institutions have been lagging far much behind. Despite the fact that change is an organizational process aimed at empowering employees to accept and embrace changes in their current business environment, there are still several predicaments that are experienced (with resistance being one of them) while implementing organizational change (Hughes & Zachariah, 2008).

Similarly to the argumentation about the influence of participation on the resistance to change, numerous studies have related the role of the information and communication about change to the reaction of the organizational members. Jenkins (2009) shows for instance in their study about the re-organization of the U.S. Department of Housing and Urban Development’s public housing program that those employees who perceived the reception of information about the organization’s change as satisfactory have a positive acceptance of organizational change. The participation of the employees in the change shows a similar positive influence in the organizational change acceptance (DiMaggio & Hargittai, 2001).

Adoption of a digital culture aims to benefit from use of most innovative forms of information technologies, particularly web-based internet applications, in improving government’s fundamental functions (Mue, 2013).

These functions are now evolving into mobile and wireless technologies and heading towards a new direction termed as mobile government (m-Government). Digital government is the use of Information Technology in particular the internet to deliver public services in a much more convenient, customer oriented, cost effective and altogether different and better way. The emergence of digital culture offers potential to reshape the public sector and build relationships between citizens and the government through provisioning convenient access to government information and services, to improve the quality of services and provide better opportunities to participate in democratic institutions and processes. The digital government movement is being driven by the need for Government to cut costs and improve efficiency, meet citizen expectations and improve citizen relationship and facilitate economic development (Mwangi, 2013).

The Kenyan government, for example, has been involved over the years in computerization projects in different departments. More recently these efforts have been galvanized under the banner of E-Government, which has increasingly been identified within the government's development framework as an instrument for achieving economic prosperity (Muli, 2011). For instance, the Kenya E-Government Secretariat was set up in 2004 under the Office of the President to be an oversight body to galvanize all ICT projects within government aimed at enhancing service delivery of all the ministries. The Ministry of Information and Communications was set up in 2004 for the first time in the history of Kenya, mainly to handle the wider universal access goals to enable the citizens actively participate in a global economy which is increasingly knowledge-based (Ong'ang'a, 2014). Kenya as a developing country in Eastern Africa, has been attempting to implement a broad-based public reform program partly founded on an E-Government vision which was officially articulated in 2004. The policy documents detailed a number of initiatives aimed at improving communication within government agencies, between government and business, and between government and citizens. The national ICT policy suggests that the focus should be on redefining the relationship between Government and citizens with the objective of empowering them through increased and better access to government services (Mwangi, 2013). Despite the formulation of various policies to support the adoption of a digital culture in public institutions in Kenya, various public institutions and their employees have been resistant to this change.

1.1 Statement of the Problem

Most ICT implementation projects have a high influence on the organizational environment and the working processes. Employees as organizational members do not just assess the technical components of ICT, but rather contribute to the organizational changes involved in the introduction of Information and Communication Technologies (ICT). Employees may support change (accept technology) and innovation, but they also may reject to use technical tools blocking change processes. Hughes and Zachariah (2008), shows that employees' resistance to change represents a very important factor in organizational change projects. Resistance is an inevitable response to any major change. Individuals naturally rush to defend the status quo if they feel their security or status is threatened. Resistance has been defined differently by different scholars. Most organizations are facing aggression and frustration in employees as the emotional factors that caused undesirable behaviors and resistance to change (Govindarajan & Trimble, 2010). Technology acceptance is an important factor in ICT-enabled organizational change projects and should not be neglected, but it is just one among others. Basing on the example of the implementation of an electronic record system in the state (Land) Brandenburg (Germany), the paper addresses the question whether employees 'resistance to change' related to the implementation of ICT innovations can be explained by other factors beyond emerging technical problems (DiMaggio & Hargittai, 2001).

Despite colossal amount of money having been spent and continues to be spent on the development and implementation of government, government institutions have not yet fully adopted a digital culture. For a long time now, the most frustrating times for many of the Kenyan citizenry has been dealing with Government offices in respect to a service provided by the latter. It has been a nightmare to get anything done promptly by the Government officials because overdependence on manual operational and data storage systems. For instance, more than 50% of procurement processes in Kenya public organization are carried out manually. The manual processes are costly, slow, inefficient and data storage and retrieval poor (Mue, 2013). Despite its importance in the adoption of a digital culture, there is no empirical evidence of studies done on the effect of resistance to change on the adoption of a digital culture in Kenya, its therefore imperative to seeks more investigations through research on the effect on digital culture..

1.2 Objectives of the study to be carried.

1.2.1 General Objective

The general objective of the studies should be to investigate the effect on the adoption of a digital culture by focusing various institutions.

1.2.2 Specific Objectives

The specific objectives of the study will be:

- i. To determine the effect of top management support and commitment on the adoption of a digital culture in institutions.
- ii. To establish how organizational culture influence the adoption of a digital culture marked institution.
- iii. To find out the effect of level of communication on the adoption of a digital culture in institutions.
- iv. To assess how the level of employee involvement influence the adoption of a digital culture in institutions.

1.3 Research Questions

The study should seek to answer the following questions;

- i. What is the effect of top management support and commitment on the adoption of a digital culture in institutions?
- ii. How does organizational culture influence the adoption of a digital culture digital culture in institutions?
- iii. What is the effect of level of communication on the adoption of a digital culture digital culture in institutions?
- iv. How does the level of employee involvement influence the adoption of a digital culture in digital culture in institutions?

1.4 Significance of the Study

This study will be of great importance to the management of many organizations and /firms Company as it will provide information on how top management support and commitment, organizational culture, level of communication and level of employee involvement influence adoption of a digital culture. This information can be used to improve the adoption of a digital culture.

To policy makers and the government and states, the study provides information that can be used to formulate policies to reduce resistance to change and improve adoption of a digital culture. The study will also provide information that can be used to formulate policies to protect the stakeholders.

To academicians and other researchers, the study adds more information to the body of knowledge on the effect of resistance to change on the adoption of a digital culture. The study also provides a base upon which other studies can be conducted on the adoption of a digital culture.

The research is of importance to organizational policy makers by providing relevant information about digital culture adoption initiatives to employees, citizens and other end users and its effect on organizational behaviour. Specifically, the government policy makers can use the research findings when drafting statutory polices to regulate digital related concepts.

The study will also be also of use to other **ICT** students and scholars who might want to carry out their research in the area of digital culture versus change.

II. REVIEW OF LITERATURE

2.1 Introduction

This chapter presents a review of literature on digital culture versus change. The chapter begins with a theoretical review, empirical review of all the four variables and conceptual framework that can be used to deeply relate and draw a connectivity picture on the two parameters.

2.2 Theoretical Review

A theory is a set of statements or principles devised to explain a group of facts or phenomena, especially one that has been repeatedly tested or is widely accepted and can be used to make predictions about natural phenomena.

2.2.1 Technology Acceptance Models

One of the most widely used and adapted models of technology acceptance has been the TAM developed by Davis et al. (1989). The TAM derives from Ajzen and Fishbein's (1980) work on the theories of reasoned action and planned behavior to predict the behaviors of people in specific situations.

The original version of TAM proposed a basis for tracing the impact of external variables on internal beliefs, attitudes, and intentions. The theory suggested that attitudes towards using technology are a function of two belief constructs: perceived usefulness of the technology, and perceived ease of use of the technology. The theory proposed that perceived ease of use has a causal effect on perceived usefulness. Perceived usefulness is defined as the degree to which an individual believes that using a particular system would enhance his or her job performance". Perceived ease of use is defined as "the degree to which an individual believes that using a particular system would be free of physical and mental effort..

TAM2 introduced and tested the original model in terms of social influence and cognitive instrumental processes, and found that both significantly affected user acceptance. The model made an important distinction between voluntary and mandatory usage, following findings that usage intentions vary even when a change is organizationally mandated. One of the practical considerations of TAM2 was that mandatory approaches to new systems seemed less effective over time than the use of social influence (Sun, 2003).

Critiques of TAM and related theories have also suggested that the model has strong limitations. Legris et al. (2003) reviewed 22 articles published from 1980 to 2001 that used TAM and concluded that TAM was a useful model, but one that "has to be integrated into a broader [model] which would include variables related to both human and social change processes." This criticism suggests that other relevant factors are not included in the model and the explanatory power of TAM is limited despite the statistical success of its regression models (Sun 2003). In response to these developments, a unified model of user acceptance of IT (UTAUT) was formulated and empirically tested, outperforming the eight original models on which it was based (Venkatesh et al., 2003). The new model confirmed the significant moderating effects of experience, voluntariness, gender, and age. The authors also suggested that public and resource-poor environments were other factors that were not yet adequately addressed in their new model. All of the theories in this family have roots in a normative tradition of social research, and the weight of quantitatively focused empirical research using these theories suggest considerable success in predicting behavioral intentions toward a piece of technology using the predictors described above (Sun 2003). A common thread of previous technology acceptance models such as TAM is the focus on cognitions about the target technology. TAM examines the precursor beliefs to predict a focal attitude towards the technology in question. Issues related to organizational culture are not present in the theory. Likewise absent is the consideration of the individual's perception of usefulness in respect to career goals and orientation within the organization.

2.2.2 Innovation Diffusion Theory

The theory of Diffusion of Innovations as described by Rogers (2013) is well known. Rogers describes diffusion of innovations as: "the process by which an innovation is communicated through certain channels over time among the members of social systems. It is a special type of communication, in that the messages are concerned with new ideas" (Rogers, 2013). Technology diffusion is an indispensable process through which technological potential of innovative activities can be actually turned into productivity. Various characteristics of the economic environment in which diffusion takes place may affect the pace of diffusion, while the diffusion itself may also have feedbacks on the environment. A decision not to adopt an innovation relates to the rejection of the available new idea (Weigel et al., 2014). However, in order to explain the rate of adoption of innovations, Rogers suggests measurement of the following perceived characteristics of innovations: relative advantage compatibility; complexity; reliability; and observability. Rogers (2013) postulated that the adoption of innovations is influenced by these five characteristics, and that they can explain the rate of technology adoption. The innovation diffusion theory states that over time an innovation will diffuse through a population and the rate of adoption will vary between those who adopt early (early adopters) and those who adopt the innovation much later (laggards). Resistance to change phenomenon can explain much of the hesitation that occurs on the part of constituents in moving from paper to a Web-based system for interacting with public institutions. Citizens, employees and businesses can all have their biases with respect to how transactions should be processed. However, government entities and public policy administrators cannot ignore the changes that occur as a result of the implementation of information and communication technology (ICT). In the early 1990s Freeman identified the important role that ICT would have in shaping public policy, and cautioned both rich and poor governments about neglecting its significance. Education about the value of the new systems is one step toward reducing some of the existing resistance. It can also be particularly useful for a leader or manager, to buy into the new system at an early stage in the adoption process.

2.3 Empirical Review

2.3.1 Top Management support and commitment

Successful technology adoption by expected users in construction firms requires implementation support and encouragement from senior managers if individuals are to adopt and utilize the technology (Boonstra, 2013). As senior managers can influence the implementation and use of new technologies, which according to Canyon et al. (2011) involves managers devoting time to the technology in proportion to its costs and potential, as well as reviewing plans, monitoring results and facilitating the management problems involved with integrating the technology with the management process of the business. Tye and Chau (2003) also maintain that top management support encourages technology usage and better user performance, influences positive user perceptions and improves the overall technology adoption uptake. Similarly Canyon et al. (2011) found that effective upper management support was one of the strongest enablers on innovation implementation in construction firms. top management support is viewed as a clear commitment and allocation of sufficient resources to the innovation and if needed active involvement in managing change and innovation adoption. According to Tye and Chau (2003), top management support plays a crucial role in determining technology implementation success and failure. Furthermore, Boonstra (2013) argues that a substantial body of knowledge has linked top management support to large scale technology implementation success. In terms of the UTAUT model, the facilitating conditions construct does not specifically measure top management support. According to Boonstra (2013), the top management support construct has not been sufficiently integrated into existing user

adoption theories, nor has literature defined specific top management behaviors that are associated with technology implementation success. Top management support is one of the important and critical success factor for adoption of a digital culture. Top management needs to publicly and explicitly identify the project as a top priority. Senior management must be committed with its own involvement and willingness to allocate valuable resources to the implementation effort. This involves providing the needed people for the implementation and giving an appropriate amount of time to get the job done. The top management support is needed for digital culture initiatives. There are many political decisions from top management during the digital culture developing period.

2.3.2 Organizational culture

Organizational culture has an important influence on the behavior of individuals within the culture, even given their own unique situations and characteristics. Any attack on or resistance to the organization's cultural elements will face rejection. Consequently, organizational culture plays a significant role in resistance when individuals change from one setting to another within the organization (Travica, 2008). Culture works to both expand the horizons and frame the perceptions of individuals working within its environment. That is, the culture of the organization forms a frame of reference for the individual's interpretation of events and activities. Moreover, it helps to predict the behavior of individuals and groups. In general, when an individual is facing a particular situation or problem, he or she will act according to his or her culture; it is difficult to predict a person's behavior without any knowledge of the person's culture (Cudanov & Jasko, 2012).

The significance of organizational culture is that it provides a framework for organizing and directing organizational behavior, in the sense that the organizational culture affects employees and the behavior required of them within the organization (Zorn, Flanagin & Shoham, 2011). It is therefore concluded that organizational culture is characterized by a number of qualities which are shared among employees, can be learned, and can be passed on to new employees. It is important to recognize that no organization's culture is exactly like the culture of another, even if they are operating in the same sector. Every organization's culture develops along many different dimensions. For example, organizations differ with respect to the age of the organization; patterns of contacts; work systems and procedures; the process of the exercise of power; leadership style; and values and beliefs. If an organization wants to protect its culture, it constantly strives to attract employees who are compatible with its values, beliefs, and philosophy.

Adoption of a digital culture requires change in style of the functioning of an organization and the change in culture to facilitate changing market conditions, change in government policies, new technologies and other factors. An organizational culture poses a threat to the changes. However, organizational culture can also be advantageous in the application of e-management. Managing organizational culture is critical for bringing organizational values, beliefs, regulatory norms and organizational expectations to life, supporting the implementation of its strategies, promoting adaptation, goal attainment and sustainability (Welch & Feeney, 2014). Organization culture is referred to us the behaviors that contribute to unique social and psychological environment of an organization. It includes the organization's expectations, experiences, philosophy, and values that holds it together. It is expressed in its inner workings, its self-image, interaction with the outside world, and future expectations. It is based on shared attitudes, custom and norms, beliefs and values (Zorn, Flanagin & Shoham, 2011).

From what we have learned above, culture is an important aspect in guiding the behaviors of employees. It also assists in maintaining the identity group, cohesion of members and the survival of the respective group. It defines how things are going to be done in different situations in a whole organization through a set of rules and regulations. It allows an active participation of all employees as a team and safeguards their interests (their family concerns, common values and goals. We can conclude then that organizational culture is vital in the determination of organizational success. According to Cudanov and Jasko (2012), organizational culture plays an important role in the application and spreading of electronic management in an organization. Various components of organizational behavior include organizational beliefs, organizational values, organizational norms an organizational expectations. Organizational beliefs are the shared ideas about the nature of work and social life in the working environment in business or any other institution (Travica, 2008). It includes the following: importance of employees working in a team and importance of active decision making towards achievement of the organization goals. The alignment of organization beliefs gives a path to the firm and has important implication for incentives and coordination. Organizational values are underlying and the relatively stable dispositions which people use to guide their actions and decisions and to help them make judgment about what is right or wrong (Zorn, Flanagin & Shoham, 2011). Organizational norms are the standards set in an organization for every employee to adhere to. For example, standards such as not being away from the workplace for more than 6 hours. Organizational expectations are an unwritten set of expectations on an individual or an organization. They are based on the image of an organization, the earlier performance, the size of the organization and the advantages of the organization's access (Cudanov & Jasko, 2012).

2.3.3 Level of communication

Communication has been described by Saruhan (2014) as the glue that holds the organization together. Poor communication is the number one problem in virtually all organizations and the cause of most problems. Communication is the process of exchanging information by the use of words, letters, symbols or non-verbal behavior. McKay, Kuntz and Naswall (2013) define communication as the perception of verbal and nonverbal behaviors and the assignment of meaning to them. Communication is important for creating value and for strategies to succeed people need to understand what the strategy is, the context of the strategy and the rationale behind it.

As argued above, for change to succeed people need to understand what the change is, the context and the rationale behind it and as Ricotta et al. (2015) puts it, differentiated communication tactics during different phases of organizational change can have an important impact on the level of acceptance of that change by organizational participants. As organizations face changing operating environments, they need to respond or change accordingly. For this change to be efficient organization needs to communicate and as Saruhan (2014) puts it, an organization only communicates effectively when its messages are clear and reasons for the message convincing. Garcia-Cabrera et al. (2014) states that effective communication is a leader's most potent tool for inspiring workers to take responsibility for creating a better future (implementing the vision). This future will mostly be different hence a change initiative.

Meaningful communication informs and educates employees at all levels and motivates them to support the strategy (Saruhan, 2014). This is important as positive attitudes to change are vital in successful change programmes, as resistance to change is one of the biggest barriers to overcome. Meaningful communication requires a degree of 'cognitive organizational reorientation' (Kagaari, Munene & Ntayi, 2010) i.e. comprehension and appreciation of the proposed change. For the alternative workplace strategy to succeed Finance employees needed to understand the benefits of the new workplace initiative and their part in it. Litwin (2011) as cited in Sharif and Scandura (2014) states that communication is a way of avoiding uncertainty that change can promote. This is important as high levels of uncertainty will negatively affect readiness for change (Shari & Scandura, 2014).

Resistance to change occurs when there is a lack of information or perceived benefits. People like to be in control of their destiny and outside change is a threat to this control, hence it is resisted (Sharif, M., & Scandura, T. (2014). Litwin (2011) proposes a communications model that displays the impact of communication on uncertainty and readiness for change. When the communication is meaningful and describes the reason for the change there is greater readiness, whereas if the information is vague it is more likely to create uncertainty. This is why personally relevant information is better than general information when communicating for change. During the change process the communication needs of those affected by the change is required to adapt. Taking the Pihlak and Alas (2012) change acceptance model, it is possible to plot these needs at the various stages of unfreezing, movement and refreezing. This proposed model of communication was not used in the implementation of the workplace strategy.

2.3.4 Level of employee involvement

According to Kagaari, Munene and Ntayi (2010), employee participation (i.e., involvement) is a conscious and intended effort by individuals at a higher level in an organization to provide visible extra role or role-expanding opportunities for individuals or groups at a lower level in the organization to have a greater voice in one or more areas of organizational performance. Garcia-Cabrera et al. (2014) indicated that there has been an increased use of employee involvement and participation mechanisms in corporate decision making in the 1990s. These are often initiated by management as a means of harnessing employee expertise in decisions to introduce new technologies and to gain employee cooperation in substantial corporate restructuring and changes to work practices which have been introduced to improve the competitiveness of these organizations in global markets (Garcia-Cabrera et al., 2014). It has been suggested that managers have a preference for direct negotiations with employees rather than representational consultative mechanisms, which often involving union representatives, when negotiating organizational change.

Decision-making makes it possible to adopt the best course of action in carrying out a given task. It becomes necessary to find out the best way when there are different ways of performing a task and the action finally selected should produce the best results and should be acceptable to both the workers and management (Kagaari, Munene & Ntayi, 2010). Satisfied workers put in their best efforts and this results in higher output which satisfies management who may come forward to share the gain with the workers, thus, there is improvement in the overall efficiency of the organization (Litwin, 2011). Strategic planners often fail to take into account the extent to which midlevel and frontline people can make or break a change initiative. The path of rolling out change is immeasurably smoother if these people are tapped early for input on issues that will affect their jobs. Frontline people tend to be rich repositories of knowledge about where potential glitches may occur, what technical and logistical issues need to be addressed, and how customers may react to changes. In addition, their

full-hearted engagement can smooth the way for complex change initiatives, whereas their resistance will make implementation an ongoing challenge (Shari & Scandura, 2014). Planners who resist early engagement at multiple levels of the hierarchy often do so because they believe that the process will be more efficient if fewer people are involved in planning. But although it may take longer in the beginning, ensuring broad involvement saves untold headaches later on. Not only does more information surface, but people are more invested when they've had a hand in developing a plan (Litwin, 2011).

2.4 Conceptual Framework

This chapter investigates the effect of resistance to change on the adoption of a digital culture. The independent variables will be top management support and commitment, organizational culture, level of communication and level of employee involvement. On the other hand, the dependent variable will be adoption of a digital culture.

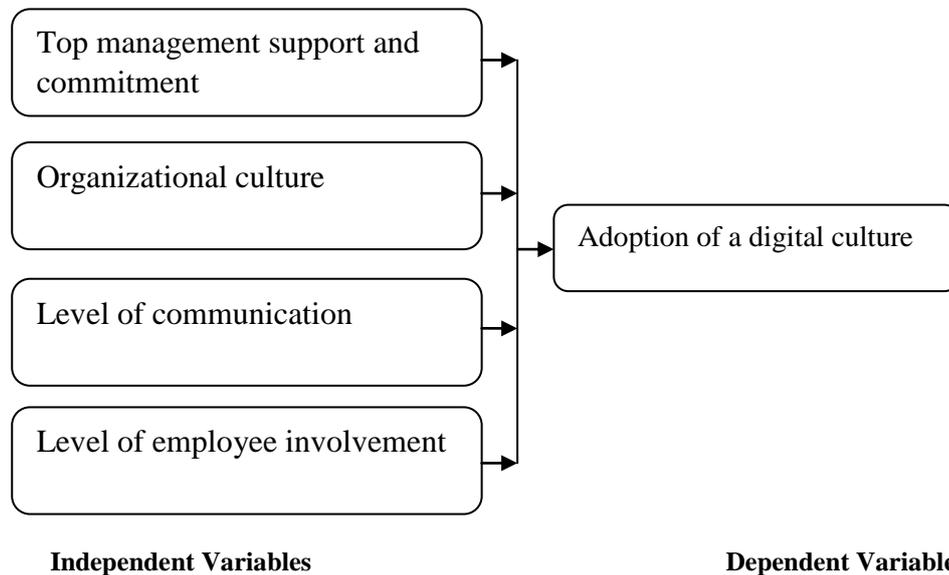


Figure1. 1: Conceptual Framework

Source: Author 2016

III. CONCLUSION

Digital culture offers new challenges, by enabling easy information exchange and cooperation and by obliging compliance with more compressed control systems for accessing information and cultural goods. New practices are emerging in the digital context and today’s digital culture not only frames our experience of the world around us but also gives us a complex set of tools with which to organize new ways for interrelating information and local and global culture; in other words, technology not only provides tools but also defines the environment in which we live. Ignoring this context switch is likely to distance the culture sector from users who continue to break new ground in terms of practices, expectations and habits. Digital networks have created conditions of possibility which suggests possible futures. The future of cultural development will be determined by the purpose for which digital culture is used: either to facilitate intercultural communication and create knowledge resources to which everyone can contribute and exchange, or to implement market-based and for-profit activities that tighten control over knowledge and information..

REFERENCES

[1] Ajzen, I. & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888-918

[2] Boonstra, A. (2013). How do top managers support strategic information system projects and why do they sometimes withhold this support?. *International Journal Of Project Management*, 31(4), 498-512.

[3] Bryman, A. (2003). Integrating quantitative and qualitative research: how is it done? *Qualitative research*, 6(1), 97 – 113.

[4] Canyon, D., Adhikari, A., Cordery, T., Giguere-Simmonds, P., Nguyen, H., Huang, J., & ... Yang, D. (2011). Top Management Support for Preparedness in Australian Health Organisations. *Asia Pacific Journal Of Health Management*, 6(1), 43-46.

- [5] Chinn, M. D. & Fairlie, R. W. (2004). The determinants of the global digital divide: a cross-country analysis of computer and internet penetration, *NBER Working Paper Series*, National Bureau of Economic Research, Cambridge, August 2004.
- [6] Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods*. New Delhi: Tata McGraw Hill.
- [7] Creswell, J.W. (2006). *Research design. Qualitative, quantitative, and mixed methods approaches*. Thousand Oaks CA: Sage.
- [8] Cudanov, M. M., & Jasko, O. (2012). Adoption of information and communication technologies and dominant management orientation in organisations. *Behaviour & Information Technology*, 31(5), 509-523.
- [9] DiMaggio, P., & Hargittai, E. (2001). From the “Digital Divide” to “Digital Inequality”: Studying Internet Use as Penetration Increases, *Working Paper #15*, Center for Art and Cultural Policy Studies, Princeton University
- [10] Garcia-Cabrera, A. M., & Garcia-Barba Hernandez, F. (2014). Differentiating the Three Components of Resistance to Change: The Moderating Effect of Organization-Based Self-Esteem on the Employee Involvement-Resistance Relation. *Human Resource Development Quarterly*, 25(4), 441-469.
- [11] Govindarajan, V., & Trimble, C. (2010). *The Other Side of Innovation: Solving the Execution Challenge*. Boston: Harvard Business Review Press.
- [12] Hughes, M., & Zachariah, S. (2008). An investigation into the relationship between effective administrative leadership styles and the use of technology. *International Electronic Journal for Leadership in Learning*, 5(5), 1-10
- [13] Jenkins, H. (2009). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Cambridge: The MIT Press.
- [14] Kagaari, J. K., Munene, J. C., & Ntayi, J. M. (2010). Performance Management Practices, Information and Communication Technology (ICT) Adoption and Managed Performance. *Quality Assurance In Education: An International Perspective*, 18(2), 106-125.
- [15] Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Delhi: New Age International (P) Limited Publishers.
- [16] Legris, P., Ingham, I. & Collette, P. (2003) "Why do people use information technology? A critical review of the technology acceptance model". *Information Management*, 40(3), 191-204
- [17] Litwin, A. S. (2011). Technological change at work: the impact of employee involvement on the effectiveness of health information technology. *Industrial & Labor Relations Review*, 64(5), 863-888.
- [18] McKay, K., Kuntz, J. C., & Näswall, K. (2013). The Effect of Affective Commitment, Communication and Participation on Resistance to Change: The Role of Change Readiness. *New Zealand Journal Of Psychology*, 42(2), 29-40.
- [19] Meier, R. Schuppan, T. & Ben, R. (2010). *Influencing factors on the employees' resistance to change in ICT-enabled public sector organizational transformation*. Retrieved from https://www.scss.tcd.ie/disciplines/information_systems/egpa/docs/2013/MeierSchuppanRuizBen.pdf
- [20] Mue, J. K. (2013). Factors influencing adoption and use of information and communication technology at the ethics and anti-corruption commission of Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1 (6), 127- 146.
- [21] Muli, R. K. (2011). *Challenges of adoption of ICT in technical Training Institutions within Nairobi County*. Retrieved from <http://erepository.uonbi.ac.ke:8080/handle/123456789/3311>
- [22] MUWASCO. (2014). *Company Profile*. Retrieved from <http://www.muwasco.co.ke>
- [23] Mwangi, I. N. (2013). *Investigating Causes of Resistance to Change in Kenyan Public Sector: A case of Postal Corporation of Kenya*. Retrieved from <http://ir-library.ku.ac.ke/handle/123456789/7068>
- [24] Ong'ang'a, A. E. (2014). *ICT infrastructure and E-government adoption among Local Authorities in Kisumu County, Kenya*. Retrieved from <http://researchkenya.or.ke/node/41717>
- [25] Pihlak, U., & Alas, R. (2012). Leadership Style and Employee Involvement during Organizational Change. *Journal of Management & Change*, 29(1), 46-66.
- [26] Ricotta, E. E., Boulay, M., Ainslie, R., Babalola, S., Fotheringham, M., Koenker, H., & Lynch, M. (2015). The use of mediation analysis to assess the effects of a behaviour change communication strategy on bed net ideation and household universal coverage in Tanzania. *Malaria Journal*, 14(1), 332-348.
- [27] Rogers, E. (2013). *Diffusion of Innovations*. London: Free Press
- [28] Saruhan, N. (2014). The Role of Corporate Communication and Perception of Justice during Organizational Change Process. *Business & Economics Research Journal*, 5(4), 143-166.
- [29] Sharif, M., & Scandura, T. (2014). Do Perceptions of Ethical Conduct Matter During Organizational Change? Ethical Leadership and Employee Involvement. *Journal Of Business Ethics*, 124(2), 185-196.
- [30] Sun, H. (2003). An Integrative Analysis of TAM: Toward a deeper understanding of Technology Acceptance Model. In *Proceedings of the 9th American Conference on Information Systems*, edited by Dennis Galletta and Jean Ross (Tampa, FL) p. 2255

- [31] Travica, B. B. (2008). Influence of Information Culture on Adoption of a Self-Service System. *Journal Of Information, Information Technology & Organizations*, 31-15.
- [32] Tye, E. N., & Chau, P. Y. (2003). A study of information technology adoption in Hong Kong. *Journal Of Information Science*, 21(1), 11.
- [33] Venkatesh, V., Morris. M., Davis, G. & Davis, F. (2003). User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, 27(3), 425-478
- [34] Weigel, F. K., Hazen, B. T., Cegielski, C. G., & Hall, D. J. (2014). Diffusion of Innovations and the Theory of Planned Behavior in Information Systems Research: A Meta-analysis. *Communications of the Association for Information Systems*, 34619-636.
- [35] Welch, E. W., & Feeney, M. K. (2014). Technology in government: How organizational culture mediates information and communication technology outcomes. *Government Information Quarterly*, 31(4), 506-512.
- [36] Yin, R. K. (2008). *Case study research: design and methods* (2nd ed.). Thousand Oaks: Sage Publications.
- [37] Zorn, T. E., Flanagan, A. J., & Shoham, M. D. (2011). Institutional and Noninstitutional Influences on Information and Communication Technology Adoption and Use among Nonprofit Organizations. *Human Communication Research*, 37(1), 1-33.

[38] APPENDICES

Appendix I: Questionnaire

Section A: General Information

This brief introductory section asks you questions that will help us understand the range of people participating in this questionnaire. Please remember that this information is not for the purpose of trying to identify any individual and remains anonymous.

1. What is your gender?
Male Female
2. How many years have you been working in the company?
1 -5 years
6-10 years
11-15 years
Above 15 years
3. What is your highest level of education?
Primary Education Secondary Education
College Education Undergraduate Education
Postgraduate Education

SECTION B

Top Management Support

4. Does the top management support the adoption of a digital culture in your organization?
 Yes No
5. If Yes, name them

6. To what extent does the top management support affect the adoption of a digital culture in your organization?
 To a very extent To a great extent
 To a moderate extent To a little extent
 To no extent
7. To what extent do the following aspects of top management support influence the adoption of a digital culture in your organization?

	Very great extent	Great extent	Moderate extent	Low extent	No extent at all
Financial support					
Policy formulation					
Support for training					

Organizational Culture

8. To what extent does organization culture influence the adoption of a digital culture in your organization?
 To a very extent To a great extent
 To a moderate extent To a little extent
 To no extent
9. To what extent do the following aspects of organizational culture influence the adoption of a digital culture in your organization?

	Very great extent	Great extent	Moderate extent	Low extent	No extent at all
Organizational beliefs					
Organizational values					
Organizational norms					
Organizational expectations					

Level of Communication

10. In your own opinion, does the level of communication affect the adoption of a digital culture in your organization?
 Yes No
11. If yes, How?

12. In your opinion, to what extent do each of the following aspects of level of communication influence the adoption of a digital culture in your organization?

	Very great extent	Great extent	Moderate extent	Low extent	No extent at all
Communicational Channels					
Frequency of communication					
Communication model					

Level of employee involvement

13. To what extent does level of employee involvement influence the adoption of a digital culture in your organization?

- To a very great extent [] To a great extent []
 To a moderate extent [] To a little extent []
 To no extent []

14. To what extent do the following aspects of level of employee involvement influence the adoption of a digital culture in your organization?

	Very great extent	Great extent	Moderate extent	Low extent	No extent at all
Participation in decision making					
Formation of teams					
Training on use of information technology					

Adoption of a Digital Culture

15. Has Murang’a Water and Sanitation Company adopted information technology?

- Yes [] No []

16. If yes, in which departments?

.....

17. To what extent does Murang’a Water and Sanitation Company use ICT in the following aspects of water management?

	Very great extent	Great extent	Moderate extent	Low extent	No extent at all
Managing water flow					
Opening and closing of water valves					
Issuing of invoices					
Managing customer’s records					
Meter reading					
Water bill payment					

18. In your opinion, should this budget for ICT strategies be increased?

- Yes [] No []

19. In which activities should Murang’a Water and Sanitation Company enhance ICT?

.....

Appendix II: Work Plan

	March	April	May	June	July	Aug
Developing Proposal						
Finalizing Proposal						
Proposal Defense						
Gather data						
Data analysis						
Report Writing						
Project Defense						
Project Submission						

Appendix III: Proposed Budget

ITEM	DESCRIPTION	COST(KSHS)
Proposal Writing	Print paper	3000
	Actual printing	5000
	Photocopy	4500
	Binding	4500
	Sub-Total	17,000
Data Collection	Collection of primary data from the respondents	50,000
	Sub - Total	50,000
Data Analysis	Photocopy	5000
	Foolscap	500
	Stationeries	5500
	Sub-Total	11,000
Report Writing	Printing	5000
	Photocopy	5000
	Binding	4000
	Sub-Total	14,000
Expense during defense		20,000
	GRAND TOTAL	112,000