



INFLUENCE OF CHANGE MANAGEMENT STRATEGIES ON THE ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY IN KENYA'S PUBLIC UNIVERSITIES: A CASE STUDY OF JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

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Abstract

This paper examines the influence of change management strategies on the adoption of Information and Communication Technology, specifically the influence of commitment building strategy, transformational leadership strategy, communication strategy and user involvement strategy on adoption of Information and Communication Technology. It adopted a case study and used semi-structured questionnaire to collect data that was analysed using SPSS. The study's findings revealed that to some extent, JKUAT had adopted change management strategies on adoption of ICT though not significantly. There was however a disconnect between employee commitment to the adoption of ICT vis-a-vis the exhibition of leadership in JKUAT, a significant percentage of (73%) respondents affirmed that they were indeed optimistic and committed to support the automation process while a small percentage revealed that the leadership did not model the expected behavior that would have spearheaded the entire automation process. The study also discovered that the communication and user involvement in the automation in JKUAT was very insignificant and respondents were dissatisfied with the same. The study recommends that although there is positive inclination towards commitment to support the automation, there is still need for improvement in leadership where employees should be motivated by the charismatic attributes of their leaders in the automation process or any other change process. Communication and user involvement should also be adopted as they are vital roles and a success factor for effective adoption of ICT.

Keywords: Change Management Strategies, Adoption of ICT

1. Introduction

ICT is becoming increasingly important in our education system thus the growing demand for its use to teach the skills and knowledge students need for the 21st century. Global investment in ICT to improve teaching and learning in schools has been initiated by many governments for example in the United Kingdom, United States and New Zealand (Nut, 2010). Despite all these investments in ICT infrastructure, equipment and professional development in many countries, Gulbahar (2007) claims that huge educational investments have produced little evidence of ICT adoption and use. Information and Communication technology (ICT) has become an important tool in modern management of Universities due to the critical role information plays in decision making in all spheres of an organization's operations. The emergence of fast and powerful computers, networks and infrastructure therefore delivers immediate and relevant information that enables policy makers in these organizations to make quick and accurate decisions. As such, in the technology driven world Universities cannot rely on manual and mechanical systems since these systems can no longer cope with the current demands for information required to facilitate management of the institutions (Ujunju et al., 2012; Acosta, 2004). This fact is emphasized by today's university students who are increasingly demanding for advanced methods of information acquisition, manipulation, and application, and show active preference for Universities with greater access to Internet based resources (Adogbji & Akporhonor, 2005).

2. Background of the study

In current organizational environment, the development of Information and Communication Technology (ICT) systems and technologies is critical. Businesses rely heavily on technical solutions in their everyday work and especially large companies face huge problems if these

systems are not up-to-date. Due to this, new ICT projects are initiated rather often in many companies. However, many of these projects do not meet their goals or even fail completely. Hammoud (2008) suggests that only 2.5% of projects fully succeed and over 50% fail completely. According to Legris and Colletette (2006), poor implementation management is another cause for ICT project failure. During the past years, more emphasis has been put on the concept of change management within ICT project management. The absence of change management has become perhaps the leading reason that researchers suggest for project failures (Williams & Williams 2007; Hammoud 2008; Douglas 2003). Due to this, change management and its importance to ICT adoption is chosen as the preliminary area of interest. Although change management has been such a prevalent topic for some years, there still is a need for a simplified model of how to manage ICT projects in practice. Sherer *et al.* 2003 highlight that investment in good change management has not often been considered as something to put a lot of effort into and this has become a problem. This indicates that the current literature and research about the topic does not provide models that could be implemented in practice.

Researcher's highlight possible reasons for most failures in ICT projects such as weak management, insufficient communication, inability to manage project uncertainty among others (Legris & Colletette, 2006; Price & Chakal, 2006; Asllani & Etkin, 2007). The list is long and researchers give different names to the problem, but they all come down to one common factor – management. The lack of change management has become perhaps the number one reason that researchers suggest for project failures (Williams & Williams, 2007; Hammoud, 2008; Douglas, 2003).

This study therefore sought to establish the influence of change management strategies on the adoption of Information & Communication Technology at Jomo Kenyatta University of Agriculture & Technology.

3. Theoretical Review

In an attempt to establish the influence of change management strategies on adoption of ICT, the study focused on four normative models as debated by numerous researchers: Kurt Lewin's change model, Kotter's model, Schein's model and Shield's model.

3.1 Kurt Lewin's Model

Organizational change as a concept was developed by Kurt Lewin in the 1950's. His model is known as Unfreeze – Change – Refreeze, referring to the three-stage process of change. The Unfreeze stage involves breaking down of existing status quo before building up the new way of operations by developing compelling messages showing why the existing ways cannot continue. Change is the next stage which involves time and communication which are critical success factors for effective change. Re-freeze is the final stage where change is internalized and incorporated into the organizational business activities. At this stage, celebrating the success of the change is important as a symbol of appreciating the effort and pain endured by the people during the process and also as affirmation that the future is successful because of the accepted change (Lewin, 1951).

3.2 Kotter's Model

Kotter (1998) developed a model for adoption at the strategic level of an organization to change its vision and subsequently its transformation. According to Kotter's change model, change involves eight steps. The first is creating a strong sense of urgency by fostering a collective understanding of why the change must occur. The second step is forming a guiding team by getting the right people in place who are fully committed to the change initiative, well respected within the organization, and have power and influence to drive the change

effort at their levels. Third is the need to get the vision right by creating a compelling picture of the desired future state while the fourth is communicating the change vision to gain understanding and buy-in.

Step five advocates for empowering action by removing obstacles, changing systems/structures that undermine the change vision and encouraging risk taking and non-traditional ideas, activities and actions while step six promotes creation of short-term wins where visible success is celebrated and positive feedback given to those behind the early gains in order to build morale. The final two steps involve consolidating gains for more change and inculcating the new approaches into the organizational culture. The former involves ensuring that the sense of urgency for change remains high so that the powerful forces of tradition and resistance do not suppress continued progress while the latter entails marrying change with culture to cement the "this is how we do things here" maxim.

3.3 Shield's Model

Shield's (1999) model advances five steps for accomplishing change namely: defining the desired business results and change plans; creating capability as well as capability to change; designing innovative solutions; developing and deploying solutions; and reinforcing and sustaining business benefits. It further observes that critical changes in certain organizational components without alignment to other components will lead to inefficient work processes. The model therefore proposes an integration of human resources management with business process innovations hence, the need for organizational leaders to clearly understand the strategies they want to change and define critical success factors to facilitate the desired change. The model further asserts that, to avoid a series of unrelated change initiatives, management must communicate the strategic objectives to the work force. It sums up by stressing the need for management to review each work element to

identify their degree of alignment in support of the business strategy.

3.4 Schein’s Model

Schein (1992) provided a more comprehensive model of change an approach he referred to as “cognitive redefinition.” He further discussed the three steps of Lewin’s Change Model and describes ways to unfreeze an organization, move it from the status quo to a future state and freeze the changes. He indicates that for unfreezing to work and for people in an organization to embrace change, they must experience a need for change and dissatisfaction with the status quo. This will make people be motivated to reduce the gap and achieve the desired change. In order to be productive, efficient and effectively accomplish the required change, people must feel psychologically safe. He proposes that there must be an assurance that the change will not cause the people humiliation, punishment, or loss of self esteem (Schein, 1992). The terminology for Stage Two, Changing, involves what he calls cognitive restructuring. That this stage helps people see and respond to things differently in the future and for this to be effective, people must identify with new role models for the cognitive restructuring to take place. They must therefore acquire new, relevant information that can help them move forward with needed changes. Finally, Stage Three (Refreezing) involves the self and relations with others. In order to make changes permanent, people must personally make the changed way of doing things a comfortable part of their respective self-concepts. They also must ensure that their respective attitudes and behaviour are aligned with the system and relationships with others, both of which must become permanently changed.

4. Conceptual Framework

The researchers developed a graphical representation of the theorized relationships of the variables captured in this study. The independent variables included commitment

building strategy, transformational leadership, communication strategy and user involvement strategy while adoption of ICT was the dependent variable.

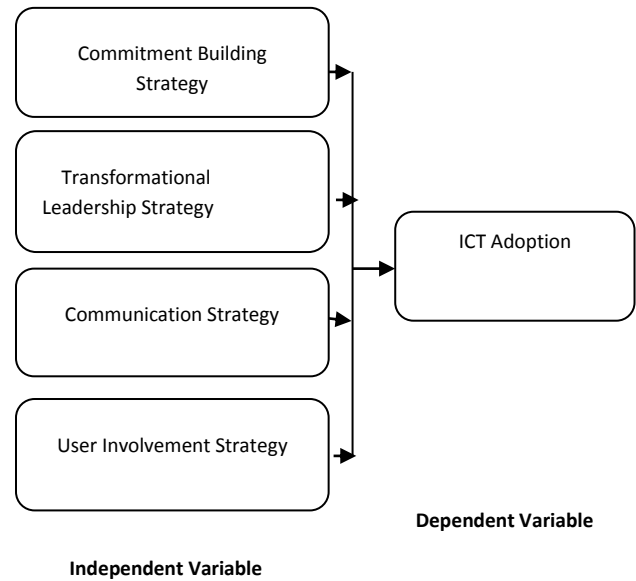


Figure 1: Conceptual Framework

5. Methodology

The study combined both the quantitative and qualitative research approaches and adopted a case study research design. The study population consisted of 1000 employees of JKUAT categorized into their respective designations that range from grades 5-14. To ensure proportional representation of the population subgroups, stratified random sampling was used to draw a sample of 100 employees using staff data records from JKUAT’s Central Registry. The researchers used a semi-structured questionnaire to collect data, which was analysed using SPSS software.

6. Research Findings

The findings of this research indicated that a majority of the respondents were willing to support and be a part of the automation process and this was affirmed by an

impressive majority (73%) with only a minority (21%) stating the contrary. Over (68%) stated they were willing to be involved in the automation process while (16%) stated otherwise. (73%) and (21%) also indicated the willingness to learn new things in relation to the automation process and willingness not to learn new things respectively. Willingness to adjust work processes to accommodate automation process verses willingness not to were rated at (75%) and (18%) respectively. The study also revealed that whereas 51% of the respondents disagreed and believe that there was no idealized influence from the leadership in the institution, 34% of the respondents believed otherwise. 54% of the respondents were of the view that their HoDs did not give any inspirational influence that would have helped them in accepting and adopting ICT, 23% were of the opinion that their HoDs gave them inspiration towards the same. Intellectual influence on the other hand had an unexpected rating where 33% of the respondents were in agreement that their HoDs provided regular feedback on the change implementation (ICT), 32% disagreed that they were not intellectually influenced and 35% of the rest of the respondents were non-committal on this aspect. The study further revealed that in the case of individualized influence, 16% of the respondents attested that their HoDs gave individual attention to those who had trouble with the ICT implementation whereas 56% of the respondents attested to not being given individual attention during the change implementation. Results revealed that 41% of the respondents were dissatisfied with the level of timely and relevance of communication about the automation process, with 26% being satisfied about timely and relevant communication. The study further revealed that 65% of the respondents disagreed that logical reasons were clearly explained to them with regard to the automation, while 11% of the respondents agreed that the same was clearly explained to them. 43% of the respondents were of the opinion that clear objectives were not communicated in advance as opposed to 28% of the felt otherwise. The study further revealed that in

the aspect of understanding why the automation process was necessary, an impressive 66% of the respondents understood the necessity to automate whereas 34% thought otherwise. The final objective of the study sought to determine role of user involvement on the adoption of ICT. Results indicated that 65% responded that the principle of consultation as end users in the automation process was not applied, 67% disagreed to the principle that there was collaboration or any form of partnership with all the end users an 61% of the respondents were of the opinion that Management placed any sort of decision making in the hands of the end uses. This highlighted the wanting state of user involvement in adopting ICT in the institution.

7. Conclusions and Recommendations

7.1 Conclusions

The study revealed various findings relating to concepts employed to determine the role of change management strategy on the adoption of ICT in Jomo Kenyatta University of Agriculture and Technology. Although under the concept of commitment building strategy, there seemed to be an overwhelming willingness to support and be involved directly in the automation process, the issue of transformational leadership undermined this great willingness to achieve the adoption of the automation process. Communication and user involvement depicted the leadership as considerably deficient in JKUAT. As much as there was a majority who were of the view that they understood the reasons for automation, communication was still lacking and partnership with the project design team and leadership on the automation process was not evident. This finding further confirms that the institution under study was not in congruent with Shield's model that proposes an integration of human resources management with business process innovations hence, the need for organizational leaders to clearly understand

the strategies they want to change and define critical success factors to facilitate the desired change.

7.2 Recommendations

Although there is a positive response in terms of commitment building strategy, there is still need for improvement. The researcher recommends that leadership must have charisma in order for followers to emulate them in the change process. Communication is a critical success factor for effective adoption of ICT and therefore JKUAT should form a guiding team by getting the right people (HoDs) in place who are fully committed to the change initiative and have power to influence and drive the change effort at their levels (Departments). The

researcher therefore recommends transformed communication by relegating all levels of leadership in the institution from the highest rank vertically to the lowest to be accountable in their capacity as leaders through continuous transformed communication from the conception of the change process to its implementation. The leadership of the institution should also recognize the end users who are the Lecturers, Secretaries, Clerks, Administrators and other users of ICT within the university who are familiar with their work environment and so they should be involved from the conception of the change process as this is a psychological stage of an individual which enhances personal relevance as important.

REFERENCES

- Acosta, F.R. (2004). *Information Technology Strategic Plan of Olivarez College unpublished doctoral dissertation*, Philippines: University of Baguio
- Adogbji, B., & Akporhonor, A. B. (2005). *The Impact of ICTs (internet) on Research and Studies; The Experience of Delta State University Students in Abraka Nigeria*. *Library HiTech News*. 1 (10), 17-21.
- Douglas III, Edward E. (2003). *Effective Management of Project Change Orders* AACE International Transactions, PM111
- Gülbahar, Y. (2007). *Technology planning: A roadmap to successful technology integration in schools*. *Computers & Education*, vol. 49, no. 4, pp. 943-956.
- Hammoud, Mohamad Saleh. (2008). *Assessing Project Success: "Comparing Integrated Change Management and Change Management"* Doctoral Dissertation, Northcentral University, USA
- Kotter, J. P. (1996). *Leading change*. Boston: Harvard Business School Press.
- Legris, Paul & Colletette, Pierre. (2006). A Roadmap for IT Project Implementation: Integrating Stakeholders and Change Management Issues" *Project Management Journal*; Dec; 37(5), 64
- Lewin K. (1951). *Field Theory in Social Science*. New York: Harper & Row
- Nut, J. (2010). Professional educators and the evolving role of ICT in schools: Perspective report. Retrieved Nov 12, 2011 from <http://www.ictliteracy.info/rt.pdf> ICTinSchools. pdf.
- Schein, E.H. (1992). *Organizational Culture and Leadership*, 2nd Ed., San Francisco: Jossey-Bass.
- Sherer, Susan A.; Kohli, Rajiv; Baron, Ayelet. (2003). Complementary Investment in Change Management and IT Investment Payoff" *Information Systems Frontiers* Sep; 5,(3), 21
- Shields, J. (1999) .Transforming Organizations, Methods for Accelerating Culture Change processes., *Information Knowledge Systems Management*, 1,(2), (Apr.),105-115.
- Williams, Michael D. & Williams, Janet. (2007). A change management approach to evaluating ICT investment initiatives" *Journal of Enterprise Information Management* 20 (1), 32-50
- Ujunju, M. O., Wanyembi, G. & Wabwoba, F. (2012). Evaluating the Role of Information and Communication Technology support towards processes of Management in Institutions of Higher Learning. *International Journal of Advanced Computer Science and Applications*, 3 (7), 55-58.