Adequacy of Facilitating Conditions for Using New Media in Scholarly Communication by Lecturers in Public Universities in Kenya

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Abstract: Scholarly communication and the whole academic publishing cycle is grappling with disruption as new media technology is increasingly playing a major role in how research is created and disseminated. Unfortunately, Kenya remains marginalized in the global knowledge arena because of low scholarly publishing activity deriving from a low research output, overdependence on the West and unavailability of facilitating conditions and infrastructure to support the use of new media in scholarly communication. The aim of this study was to examine the influence of facilitating conditions on the use of new media in scholarly communication by university academic staff in Kenya. The study used the unified theory of acceptance and use of technology (UTAUT). This was a quantitative survey research. The target population for the survey was drawn from lecturers from five selected universities which included University of Nairobi, Kenyatta University, Moi University, JomoKenyatta University of Agriculture and Technology(JKUAT) and Egerton University. A questionnaire was distributed to the lecturers in the five universities. Findings of the study were analysed using Statistical Programmes for Social Sciences Version 22. When scores of level of influence of facilitating conditions were compared with those of use of new media in scholarly communication to ascertain whether there was any significant relationship between the two variables, findings show that there was no significant relationship (p>0.005). A logistic regression model confirmed this finding. This indicates facilitating conditions were not a key determinant of use of new media in scholarly communication by lecturers in public universities in Kenya.

Key words: New media, Scholarly communication, Facilitating conditions

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I. INTRODUCTION

The academic publishing industry in Kenya is grappling with disruption brought about by digital new media which are redefining how research is created and disseminated. Today, scholarly communication is taking on new models as a result of these new media technologies which have transformed how knowledge is created and disseminated. This environment has encouraged the emergence of novel publishing models for formal and informal communication among scientists, using Internet technologies for the dissemination and communication of research findings, with capabilities which exceed those of print technologies by far (Chakava, Mberia&Gatero, 2018; Kalay, 2008; Isbouts, 2016). These new electronic publishing models based on self-archiving, have revolutionised scholarly communication and rendered it more efficient and effective especially in the developed world(Logan, 2010).

New Media were born from the merging of various technological innovations arising from perceived needs in representation and communication of information. "New Media proceeded fast to become the primary, if not exclusive, media for writing and reading scholarly papers, communicating with fellow researchers worldwide, searching for information, and many other scholarly activities" (Kalay, 2008). New Media's impact on scholarly communication are manifested through the World Wide Web, blogs, wikis, open source, podcasts, RSS feeds, and many other applications. These applications have a direct impact on dissemination of scholarly work, revenue models, and archiving methods, and – indirectly – tenure and promotion procedures in academic and research institutions. In addition, they impact the quality and nature of scholarly information itself (Kalay, 2008).

In a knowledge economy, scholarly communication is viewed as one way of producing, sharing and distributing new knowledge. To this end, new media technology is increasingly playing a major role in how research is created and disseminated. To be able to deploy new media in scholarly communication effectively, there is need to invest in the relevant infrastructure and facilitating conditions that can support the use of such

media in scholarship.

Regrettably, the number of scholarly journals published in Kenya has been declining significantly (Chakava, 2007) and their regularity of publication remains inconsistent. The rising cost of journal publishing is also driving some traditional players out of the less profitable journal publishing business. Commercial publishers are shying away from journal publishing and have left it to university presses; most of which lack the capacity, networks and infrastructure to publish and distribute journals across the country and abroad (Ilieva&Chakava, 2016). A low online presence of local scholarly publications due to poor infrastructure and limited listing of local journals on international online databases and repositories remain the major impediments to the dissemination of local knowledge to international audiences. Yet in other parts of the world, the development of the Internet has had great implications on research dissemination and scholarly publication (Walsh et al, 2000); especially in the areas of accessibility and availability of research output. The exploding growth of information has forced individual researchers to become specialised in adjusting to specialised research dissemination forums.

Kenya's Vision 2030 envisions intensified application of science, technology and innovation (STI) to raise productivity and efficiency levels across the three pillars of the Vision; Economic, Social and Political. Itrecognises the role of STI in a modern economy, in which new knowledge plays a central role in wealth creation, social welfare and international competitiveness. In 2017, Kenya set for itself four medium term goals which are popularly referred to as the Big 4 Agenda and include affordable housing, affordable healthcare, manufacturing and agricultural sustainability. In both instances, Kenya intends to become a knowledge-led economy wherein, the creation, adaptation and use of knowledge will be among the most critical factors for rapid economic growth (Government of Kenya, 2007; 2017). This, therefore, calls for sustained research activity in science and technology and the dissemination of resultant knowledge to users and industry. A highly developed and reliable scholarly communication infrastructure is required to perform this role effectively and to deliver these visions.

To remain relevant, Kenyan scholars and researchers have to find newer ways of making their scholarly work accessible. Scholars have argued that new media can help eliminate some of these challenges of research availability and accessibility (Gu and Widen-Wulff, 2010). With new media technologies, researchers have more options when they develop their scholarly communication by new information behaviours, which extend and enrich the meaning and the environment of social media (Beer, 2008). New media tools underline features such as openness, interactivity, participatory, and user-centred activities.

According to Metcalfe &Esseh, (2009), the increasing use of online publishing systems and Open Access publishing models holds some promise of increasing access to research published in developing countries like Kenya. But, though the opportunity of giving their publications global visibility through new media technologies has been made possible, the extent to which scholars in Kenya have embraced new media in disseminating their works of scholarship had been largely unknown. The burning question then is whether the relevant stakeholders who include government, universities, research organisations and funding bodies are investing in appropriate facilitating conditions that support the use of new media in scholarly communication.

II. LITERATURE REVIEW

2.1 Facilitating Conditions for Scholarly Communication

Facilitating conditions refer to the degree to which an individual believes that an organisational and technical infrastructure exists to support use of new technology' (Venkatesh *et al.* 2003). The relationship between facilitating conditions and use of a new technology is fully mediated by behavioural expectation. Recognition of the presence of favourable facilitating conditions (or lack thereof) alone is not expected to directly influence use of a new technology. Use of a new technology is premised on the consideration of whether, and to what extent, an individual perceives that facilitating conditions will enable use of a new technology in light of other potential behavioural impediments (ital).

According to Dupagne and Driscoll (2005), facilitating conditions also include the evaluation of financial resources available for purchase, judged more from one's perception of the product's intrinsic value than from its actual monetary cost. Perceived facilitating conditions are hypothesized to be positively related to rate of adoption or innovativeness with new media in scholarly communication.

In addition to the ICT infrastructural establishments, ICT technical support staff are required to monitor and maintain computer systems and software if scholarly communication is to be successfully delivered on new media platforms. According to Guma, Faraque and Khushi (2013) the breakdown of computer systems can cause delays and interruptions, and without adequate assistance and regular repairs of the computers, there can delays in scholarly communication. This results in lecturers not being able to effectively use new media in their scholarly communication activities and teaching. According to Kiptalamand Rodriguez (2010), one of the top challenges to using ICTs in higher education in Kenya has been lack of ICT technical support. Other challenges include; low internet connectivity, virus attack, cyber-attack and malfunctioning of printers. Such ICT technical barriers discourage lecturers from effectively engaging with new media in their scholarly communication and teaching functions.

Guma, et al. (2013), carried out a study to find out factors influencing the use of ICT in making the teaching and learning process effective in institutions of higher learning in Uganda. They concluded that several factors positively influence teachers and administrators to use ICT in education. These factors were:teachers' attitudes, competence in use of ICT, computer self-efficacy, teaching experience, education level, and professional development. Other factors which the research revealed to have an influence on ICT usage were; accessibility, technical support, leadership support, pressure to use technology, government policy on ICT literacy and technological characteristics. It is, therefore, crucial to provide university lecturers with technical support regarding repair and maintenance for the continued use of new media in scholarly communication. Without the technical support, lecturers may get discouraged to use new media technologies in scholarly communication.

In a 2005 ICT in Education Options Paper and ICT policy of 2006, Kenya recognised the many ways in which ICTs can support and improve the delivery of quality education at all levels and the role of ICT in the social and economic development of the nation. These options are enshrined in Sessional Paper No. 1 of 2005 and Kenya Education Support Project (KESSP, 2006) which include quality teaching and learning through ICTs (Republic of Kenya, 2006). Great strides are being made in technological developments with innovations in ICT moving faster than they are applied. For instance, in the Proceedings and Report of the 7th UlbuntuNet Alliance Conference (2014), Muia, Osure and Meoli reported that KENET had connected about 152 university campuses in 32 counties in Kenya as at 2014 with an enrolment of over 500,000 students and faculty.

The Ministry of Education in Kenya, in its endeavour to pursue quality education, recognises that ICT is an important tool for education and a crucial medium for curriculum delivery (MoE, 2006). From the aforementioned discussion, the status of access to ICT in Kenya is improving and people recognise the importance of ICTs in higher education. However, a lot of these efforts are hardly recognising the role of new media in scholarly communication. Consequently, with many public universities in Kenya facing huge financial challenges (Wanzala, 2018), investing in effective facilitating conditions to support the use of new media in scholarly communication continues to decline and is no longer considered a priority area.

2.1 Use of New Media in Scholarly Communication

The term new media generally refers to those digital media that are interactive, incorporate two-way communication, and involve some form of computing (Logan, 2010).New media are taken to be those methods and social practices of communication, representation, and expression that have developed using the digital, multimedia, networked computer and the ways the computer is held to have transformed work in other media likebooks, movies, telephones and television. The distinct characteristics of new media include: digital convergence; many-to-many communication; interactivity; globalization and virtuality. New media come from the particular ways in which older media are refashioned and the ways in which older media refashion themselves to answer the challenges of new technology (Jenkins and Thorburn, 2004).The term new media refers to a wide range of technological, textual, conventional and cultural changes in media production, distribution and use(Logan, 2010).

There are three important new media forms which affect scholarly communication. These are (1) open access archives, (2) open access publishing and (3) Web 2.0 tools (Sawant, 2012). Web 2.0 tools identified include: Online documents, multimedia sharing, social networks, tagging, Wikis, RSS, miniblogs, and blogs (Gu and Widen-Wulff, 2010). There are three alternative models for scholarly publishing presented via new media. These are: Subscription or toll access publishing, open access publishing and open access archiving(Houghton, et al., 2009).

A 2016 survey by Gallup and Inside Higher Ed found continuing resistance to adopting online and new media technologies among faculty in higher education (Jaschik& Lederman, 2016). Indeed, only a small number of universities consider research and publishing in the digital domain as credible and authoritative as print-based research publications. Despite the many challenges of access and availability of local scholarship identified in this paper, scholarly communication in Kenya can still benefit from the advantages presented by new media to increase circulation of Kenya's scholarship across the world. New media allows ease of accessibility to other publications across the world which can inform Kenyan researchers in conducting research and writing their scholarly works (Rao, 2001). Access to Kenyan publications distributed through new media will also be opened globally hence positioning Kenyan scholarship to wider audiences.

New media makes it easy to publish scholarly work by providing an easier avenue that can navigate the traditional barriers to publishing. New media also opens new unlimited avenues for scholarly communication which would have otherwise been limited by traditional print media. For instance, self-archiving allows authors to skip the lengthy processes of peer review by allowing them to upload their written work on online open access digital repositories. Indeed, the transition of journals from print to electronic has been made necessary by

factors such as cost, delays in publishing and accessibility, and does not seem to aim at dilution of any of its scholarly characteristics (Mahmood et al, 2011).

Finally, new media makes scholarly communication less costly (sometimes free). Self-archiving on online digital repositories is often free and does not require that authors pay publishing fees (Omwoha &Gakahu, 2010). Conducting research is also made cheaper as authors who refer to studies available by open access do not need to pay expensively either to subscribe to or buy their source material. This should enable Kenyan scholars to have unlimited access to as many sources as possible while writing their scholarly works. The question then has been whether research institutions have put in place the right infrastructure and facilities to support the use of new media in scholarly communication activities of their researchers.

III. THEORETICAL FRAMEWORK

This study used the Unified Theory of Acceptance and Use of Technology (UTAUT). The UTAUT model was developed by Venkatesh, Morris, Davis, and Davis in 2003. Before UTAUT was developed, there were several models which attempted to explain how technology comes to be accepted by users. In the process, different characteristics put forward by different theorists were relied on causing a lot of confusion. In response to this confusion, and in order to harmonise the literature associated with acceptance of new technology, Venkatesh et al. (2003) developed the UTAUT model that brings together alternative views on user and innovation acceptance.

Venkatesh et al (2003) synthesized eight user acceptance and motivation models to propose UTAUT. According to UTAUT, four constructs are direct determinants of technology acceptance (behavioral intention) and use (behavior): Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Conditions(Akbar, 2013). The theory argues that the effect of these constructs is moderated by four other variables: age, gender, experience and voluntariness of use. This theory was selected for this study because it provides a framework for understanding how new media has transformed scholarly communication by illustrating how facilitating conditions have influenced the acceptance and use of new media in scholarly communication in Kenya.

Facilitating conditions are the variables theorised to have a direct effect on system usage and are defined as 'the degree to which an individual believes that an organisational and technical infrastructure exists to support use of the system' (Venkatesh *et al.* 2003). The key constructs are (1) perceived behavioural control, (2) facilitating conditions, and (3) compatibility. Perceived behavioural control 'reflects perceptions of internal and external constraints on behaviour and encompasses self-efficacy, resource facilitating conditions, and technology facilitating conditions. Facilitating conditions are 'objective factors in the environment that observers agree make an act easy to do, including the provision of computer support'. Compatibility is defined as 'the degree to which an innovation is perceived as being consistent with existing values, needs, and experiences of potential adopters' (Venkatesh *et al.* 2003). The UTAUT model suggests that age and experience moderate the relationship between facilitating conditions and behavioural intentions.

IV. DATA COLLECTION INSTRUMENTS

This study used a questionnaire to collect data on the influence of facilitating conditions on the use of new media in scholarly communication by lecturers in public universities in Kenya. Data was collected from 130 lecturers who were selected from five leading public universities in Kenya . The five universities were selected based on two reports by independent international bodies which ranked them based on individual universities' research output and web presence, among other parameters. The reports by the International Availability of Scientific Publications (INASP, 2012) and Webometrics (2017) identified the following five leading public universities in Kenya: University of Nairobi, Egerton University, Kenyatta University, Jomo Kenyatta University of Agriculture and Technology and Moi University. These were the universities from which samples of respondent lecturers who were issued with the questionnaire were drawn.

The questionnaire contained mostly closed ended questions as this was a quantitative study. According to Bird (2009), closed ended questions provide the survey with quantifiable and in-depth results. In addition, closed questions produce results that are easily summarised and clearly presented in quick-look summaries. In drawing up UTAUT, Venkatesh et al (2003), used survey items from the previous eight models. Each construct had between 3-5 items. This study adopted these survey items from the original study of UTAUT but with minor modifications to fit the context of scholarly communication. Hence, based on the original instrument designed by Venkatesh et al (2003), this study designed an instrument to capture the influence facilitating conditions on scholarly communication as shown in Table 1 below.

Table 1:Influence of Facilitating Conditions on the Use of New Media in Scholarly Communication

For each of these statements, please tick one choice to indicate whether you agree on a scale of 1-5 where:1= Strongly Disagree, 2= Disagree, 3 = Not Sure, 4 = Agree, 5 = Strongly Agree.

| Facilitat | ing conditions for use of new media in scholarly communication | 1 | 2 | 3 | 4 | 5 |
|-----------|--|---|---|---|---|---|
| 1. | My university has enough computers to support the use of new | | | | | |
| | media in scholarly communication | | | | | |
| 2. | My university has installed sufficient internet bandwidth to | | | | | |
| | support scholarly communication | | | | | |
| 3. | There are adequate trained technical staff who support us in using | | | | | |
| | new media in scholarly communication | | | | | |
| 4. | Faculty are sufficiently trained on using new media in scholarly | | | | | |
| | communication | | | | | |
| 5. | The cost of acquiring new media communication technologies for | | | | | |
| | use in scholarly communication is too high. | | | | | |
| 6. | I have the financial resources to purchase new media | | | | | |
| | technologies for my scholarly communication. | | | | | |
| 7. | Overall, I believe I have enough resources to support my use of | | | | | |
| | new media in my scholarly communication. | | | | | |

V.DATA ANALYSIS AND RESULTS

5.1 Use of New Media In Scholarly Communication

Respondents were presented with eight new media technologies (Gu and Widen-Wulff, 2010) to rate the extent to which they used them in their scholarly communication activities. They rated the tools on a five-point Likert scale ranging from 1 to 5 (where, 1 = never, 2 = less frequent, 3 = fairly frequent, 4 = frequent and 5 = very frequent). The higher the score, the higher was the frequency of use in scholarly communication activities, and vice versa. The responses are summarised in Table 2 where it was observed that online publishing was the most preferred tool for scholarly communication by respondents with 59.2% reporting using it very frequently and 8.5% using it fairly frequently. RSS reported the least usage with only 13.8% of the responds reporting using it frequently in scholarly communication.

| ever | Less | Fairly | Engenerat | X 7 | 3.6 | | |
|------|---|--|---|--|--|---|--|
| 4 | | runry | Frequent | Very | Means | Std. Dev | |
| 1 | frequent | frequent | - | frequent | | | |
| 4.6 | 6.9 | 20.8 | 8.5 | 59.2 | 4.11 | 1.22 | |
| 13.8 | 12.3 | 23.8 | 10.8 | 39.2 | 3.49 | 1.459 | |
| 21.5 | 20.0 | 20.8 | 10.0 | 27.7 | 3.02 | 1.512 | |
| 25.4 | 20.0 | 18.5 | 10.8 | 25.4 | 2.91 | 1.532 | |
| 26.2 | 19.2 | 18.5 | 12.3 | 23.8 | 2.88 | 1.525 | |
| 27.7 | 26.2 | 16.9 | 13.1 | 16.2 | 2.64 | 1.425 | |
| 30.0 | 25.4 | 16.2 | 11.5 | 16.9 | 2.60 | 1.450 | |
| 35.4 | 26.2 | 14.6 | 10.0 | 13.8 | 2.41 | 1.413 | |
| | 4.6 13.8 21.5 25.4 26.2 27.7 30.0 35.4 | Inequent 4.6 6.9 13.8 12.3 21.5 20.0 25.4 20.0 26.2 19.2 27.7 26.2 30.0 25.4 35.4 26.2 | Inequent Inequent 4.6 6.9 20.8 13.8 12.3 23.8 21.5 20.0 20.8 25.4 20.0 18.5 26.2 19.2 18.5 27.7 26.2 16.9 30.0 25.4 16.2 35.4 26.2 14.6 | Hequent Hequent 4.6 6.9 20.8 8.5 13.8 12.3 23.8 10.8 21.5 20.0 20.8 10.0 25.4 20.0 18.5 10.8 26.2 19.2 18.5 12.3 27.7 26.2 16.9 13.1 30.0 25.4 16.2 11.5 35.4 26.2 14.6 10.0 | Inequent Inequent Inequent Inequent 4.6 6.9 20.8 8.5 59.2 13.8 12.3 23.8 10.8 39.2 21.5 20.0 20.8 10.0 27.7 25.4 20.0 18.5 10.8 25.4 26.2 19.2 18.5 12.3 23.8 27.7 26.2 16.9 13.1 16.2 30.0 25.4 16.2 11.5 16.9 35.4 26.2 14.6 10.0 13.8 | Inequent Inequent Inequent 4.6 6.9 20.8 8.5 59.2 4.11 13.8 12.3 23.8 10.8 39.2 3.49 21.5 20.0 20.8 10.0 27.7 3.02 25.4 20.0 18.5 10.8 25.4 2.91 26.2 19.2 18.5 12.3 23.8 2.88 27.7 26.2 16.9 13.1 16.2 2.64 30.0 25.4 16.2 11.5 16.9 2.60 35.4 26.2 14.6 10.0 13.8 2.41 | |

 Table 2: Results for use of new media in scholarly communication

N=130

The responses to each media tool were later collapsed into three ordinal categories in order to differentiate between the levels of frequency of use of new media in scholarly communication among the sampled respondents. This included a score of 8-18 (low frequency), 19-29 (average frequency) and 30-40 (high frequency). Table 3 summarizes the levels of frequency of use of new media in scholarly communication.

| Table 5. Devels of frequency of use of new media in scholarry communication | | | | | | |
|---|-----------|---------|--|--|--|--|
| Levels of frequency | Frequency | Percent | | | | |
| Low | 47 | 36.2 | | | | |
| Average | 40 | 30.8 | | | | |
| High | 43 | 33.1 | | | | |
| Total | 130 | 100.0 | | | | |

Table 3: Levels of frequency of use of new media in scholarly communication

Source: Research Data

Table 3 indicates that 36.2 % of the respondents recorded a low frequency of use, 30.8% recorded an average use while 33.1% recorded a high usage of new media in their scholarly communication. Cumulatively, therefore, 63.9% of the respondents recorded average and high level of frequency of use of new media in

scholarly communication. This suggests that university academic staff in Kenya's public universities were increasingly embracing new media technologies in their scholarly communication. This could be attributed to the fact that academic staff in Kenya may be beginning to realise that new media makes it easy to publish scholarly work by providing new unlimited avenues for scholarly communication which would have otherwise been limited by traditional print media (Meadows, 2003).

5.2 The Influence of Facilitating Conditions on the Use of New Media in Scholarly Communication

This study sought to evaluate how facilitating conditions influence the decision to use new media technologies in scholarly communication by university academic staff in Kenya. In this study, influence of facilitating conditions on the decision to use new media was assessed from a series of seven statements seeking respondent's agreement or disagreement with its various dimensions. These were based on the original UTAUT model with some modifications to suit this study. Table 4 shows the distribution of their responses on the statements.

| | Response (%) | | | | | | | |
|---|--------------|------|------|------|------|-------|----------|--|
| Tools | SD | D | NS | А | SA | Means | Std. Dev | |
| My university has enough computers to support the use of new media in scholarly communication | 32.3 | 23.8 | 20.8 | 16.2 | 6.9 | 2.42 | 1.281 | |
| My university has installed sufficient internet bandwidth to support scholarly communication | 22.3 | 20.8 | 23.8 | 21.5 | 11.5 | 2.79 | 1.322 | |
| There are adequate trained technical staff who support us in using new media in scholarly communication | 30.8 | 19.2 | 33.1 | 12.3 | 4.6 | 2.41 | 1.179 | |
| Faculties are sufficiently trained on using new medial in scholarly communication | 33.8 | 23.8 | 28.5 | 10.0 | 3.8 | 2.26 | 1.145 | |
| The cost of acquiring new media communication technologies for use in scholarly community is too high | 2.3 | 5.4 | 27.7 | 36.9 | 27.7 | 2.18 | 0.979 | |
| I have the financial resources to purchase new media technologies for my scholarly communication | 41.5 | 29.2 | 20.8 | 6.2 | 2.3 | 1.98 | 1.042 | |
| Overall, I believe I have enough resources to support my use of new media in may scholarly communication | 34.6 | 30.0 | 23.1 | 8.5 | 3.8 | 2.17 | 1.115 | |

| Table 4: Effect of facilitatin | g condition | s on use of new | media in | scholarly | communicat | tion |
|--------------------------------|-------------|-----------------|----------|-----------|------------|------|
| | P | (0.1.) | | | | |

N = 130

Respondents generally scored the constructs of facilitating conditions lowly. The mean score for adequacy of computers was 2.42, training of Faculty scored 2.26, sufficiency of internet bandwidth scored 2.79, trained technical staff scored 2.41 while availability of financial resources scored 1.98. This indicates that most respondents did not consider the new media technologies and resources set aside by their universities adequate for their use in scholarly communication.

The responses to each constituent dimension of the influence of facilitating conditions on the use of new media technologies in scholarly communication were scored on a scale of 1, indicating least level of influence of facilitating conditions, to 5, indicating highest level of influence of facilitating conditions on the use of new media in scholarly communication. The individual statement scores were summed up to form a facilitating conditions index score for each respondent (reliability coefficient, $\alpha = 0.840$). The index score varied between 7, indicating the least level of influence of facilitating conditions of new media in scholarly communication. The score varied influence of facilitating conditions of new media in scholarly communication. The index score which had a mean score of 16.21 and Std dev. of 5.785 was later collapsed into three ordinal categories in order to differentiate between the levels of influence of facilitating conditions of new media in scholarly communication.

among the respondents. This included a score of 7-16 (low influence of facilitating conditions), 17-25 (average influence of facilitating conditions) and 26-35 (high influence of facilitating conditions).

Table 5 indicates that 56.9% of the respondents recorded a low level of influence of facilitating conditions of new media in scholarly communication, 46% recorded an average level of influence while only 10% recorded a high level of influence of facilitating conditions. This suggests that most of the respondents did not believe that an organisational and technical infrastructure existed within their universities to support their using new media technology in scholarly communication.

| Levels of influence of facilitating conditions | Frequency | Percent |
|--|-----------|---------|
| Low | 74 | 56.9 |
| Average | 46 | 35.4 |
| High | 10 | 7.7 |
| Total | 130 | 100.0 |

| Table 5: Levels of influence of facilitating con | onditions |
|--|-----------|
|--|-----------|

N=130

Scores of level of influence of facilitating conditions were compared with those of frequency of use of new media in scholarly communication to ascertain whether there was any significant relationship between the two variables. As shown in Table 6, findings indicate that respondents who scored low on facilitating conditions tended to score low on use of new media in scholarly communication (41.9%) whereas those who scored high on facilitating conditions also tended to score high (60%) on use of new media in scholarly communication. However, findings show that there was no significant relationship between the two variables (p>0.005) hence suggesting that facilitating conditions were not a key determinant of acceptance and use of new media in scholarly communication.

These facilitating conditions include internet bandwidth, computers, training and technical staff to assist in usage of new media technologies. Similar views have been recorded by Ngobeni (2010) who observes that African scholarly communication still continues to suffer from low or lack of government funding. African governments significantly cut funding to university libraries leading to book famine and poor technology installation which meant that scholars could not easily access up-to-date journals and books – hence they could not produce quality research papers. In the foregoing, the concomitant and index of scholarly research declined in terms of output, quality and regularity of publications due to a decline in funding for education (Mlambo, 2007). This limited funding has also affected new media facilities like internet connectivity, provision of computers and training.

| | Level of frequency of use | | | Total | |
|------------------------------------|---------------------------|---------|-------|--------|--------|
| level of influence of facilitating | | | | | |
| conditions | low | average | high | | Number |
| low | 41.9% | 31.1% | 27.0% | 100.0% | 74 |
| average | 32.6% | 30.4% | 37.0% | 100.0% | 46 |
| high | 10.0% | 30.0% | 60.0% | 100.0% | 10 |
| Total | 36.2% | 30.8% | 33.1% | 100.0% | 130 |

 Table 6: Relationship between facilitating conditions and frequency of use of new media in scholarly communication

Pearson Chi-Square Value 5.951; df 4; P-value 0.203 Source: Research Data

Use of new media in scholarly communication (dependent variable) was correlated with facilitating conditions (independent variable). This was done to determine the strength and direction of the relationship between the independent variable and the dependent variable. Whereas the study found that facilitating conditions had a significant correlation with the use of new media in scholarly communication(0.191) at 0.05 level (2-tailed), regression analysis revealed that facilitating conditions did not record a significant relationship with use of new media in scholarly communication (p 0.358) at 95% confidence level.

VI. CONCLUSIONS AND RECOMMENDATIONS

The study sought to find out whether facilitating conditions influenced the use of new media technologies in scholarly communication by university academic staff in Kenya. Facilitating conditions is defined as 'the degree to which an individual believes that an organisational and technical infrastructure exists

to support use of the system' (Venkatesh *et al.* 2003). However, findings show that there was no significant relationship between the two variables hence suggesting that facilitating conditions were not a key determinant of use of new media in scholarly communication.

The study concludes that university academic staff in Kenya's public universities do not believe that an organisational and technical infrastructure exists to support their use of new media technologies in scholarly communication. Thus, facilitating conditions, are not a key determinant of acceptance and use of new media in scholarly communication by university academic staff in public universities in Kenya.

The study recommends a major shift from the research funding model in Kenya's universities so as to direct significant resources of the research budgets towards provision of relevant new media infrastructure to support the use of technology in the creation, packaging and dissemination of local research output. This is because newmedia has continued to proceed rapidly to become the primary, if not exclusive, media for writing and reading scholarly papers, communicating with fellow researchers worldwide, searching for information, among many other scholarly activities (Kalay, 2008). New media applications also continue to have a direct impact on dissemination of scholarly work, revenue models, and archiving methods, and – indirectly – tenure and promotion procedures in academic and research institutions. Kenyan universities should strive to be part of this rapid growth which leverages on new media for the creation, processing and dissemination of scholarly output.

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