

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/323423332>

# The role of Kenyan universities in promoting research and scholarly publishing

Article in *South African Journal of Libraries and Information Science* · February 2018

DOI: 10.7553/83-2-1705

CITATIONS

0

READS

348

3 authors, including:



**Florence N. Weng'ua**

The Technical University of Kenya

2 PUBLICATIONS 0 CITATIONS

[SEE PROFILE](#)



**Daniel Chebutuk Rotich**

Moi University

24 PUBLICATIONS 53 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Quality and Relevance of Illustrations in Approved Primary School Textbooks [View project](#)



Library and Information Sciences [View project](#)

# The role of Kenyan universities in promoting research and scholarly publishing

Florence N. Weng'ua<sup>1</sup>, Daniel Chebutuk Rotich<sup>2</sup> and Emily J. Kogos<sup>3</sup>  
wenguaflorence@gmail.com ORCID: orcid.org/0000-0001-6124-7128  
dcrotich@hotmail.com ORCID: orcid.org/0000-0003-0974-2329  
emilykogos@gmail.com ORCID: orcid.org/0000-0002-1112-846X

Received: 08 September 2017

Accepted: 11 January 2018

*This study examined the role of Kenyan universities in promoting research and scholarly publishing. Two universities, one public and one private, were sampled from the total number of seventy-one universities in Kenya. From a population of 433 in total, 111 participants were sampled from the two universities and from the Commission for University Education (CUE). Qualitative and quantitative data were collected using questionnaires and interviews. The study revealed that the role of CUE in promoting research and scholarly publishing has not yet been fully realised in universities and that incentives offered to university faculty members to research and publish are ineffective. Faculty members of universities experienced research challenges including: inadequate research funding and infrastructure, poorly funded libraries, insufficient time for research and training, and a poor research culture. The study concluded that there is a need for universities to motivate and facilitate their faculty members to undertake research and publish research findings. CUE should play an active role in promoting research and scholarly publishing in Kenyan universities.*

**Keywords:** Research, scholarly publishing, Kenya, universities

## 1 Introduction

Scholarly publishing is an activity mostly associated with those who teach or conduct research in higher learning and research institutions (Okemwa 2007: 3). Institutions of higher learning exist to fulfil functions associated with scholarly publishing, which disseminates research findings and generates new knowledge. Universities are ranked according to (among others) the number of journal articles published by their faculty members, and scholarly publications are considered during hire or promotion of faculty members. Maher (2006: 1) argued that, when a university decides to hire or promote a faculty member, it has to ensure that it is hiring or promoting a person who has the knowledge and skills required to conduct research and teach students. In Kenyan universities, for faculty members to be hired or promoted, they must have published a number of articles in refereed scholarly journals, among other requirements. According to Darko-Ampem (2003: 19), “academic advancement and job retention depend upon publishing the result of research” and:

Scholarly research and publishing have become an integral component of the academic world. The importance of publishing to any academic is perhaps best underlined by the maxim ‘publish or perish’. Indeed, publishing in the academic world determines a scholar’s standing or status both within the local research community and internationally. The centre of the scholarly communication process is the academic reward system present in most universities which recognises publication (Darko-Ampem 2003: 1).

In Kenya, because of the rapid development of university education, it was necessary to come up with rules and procedures to guarantee quality of teaching and research. In response to challenges facing higher education, most countries have established oversight bodies to promote and enhance quality university education. In Kenya, for example, the Commission for University Education (CUE) was established with a mandate to oversee all universities. Nigeria established the National University Commission (NUC), Uganda established the Uganda National Council of Higher Education (UNCHE), whereas

- 
1. Florence N Weng'ua is a graduate student in the Department of Publishing and Media Studies, Moi University, Kenya, as well as a Graduate Assistant at the Department of Printing and Media Technology, Technical University of Kenya
  2. Daniel C Rotich is Professor in the Department of Publishing and Media Studies as well as a Research Fellow in the Department of Information Science, University of South Africa
  3. Emily J Kogos is Senior Lecturer in the Department of Publishing and Media Studies, Moi University, Kenya

Tanzania established the Tanzania Commission for Universities. These oversight bodies are responsible for accreditation of all universities and for ensuring that all universities in their countries comply with established standards and regulations.

Migosi, Muola and Maithya (2012: 115) affirmed that research is extremely important in university education. Universities in Kenya exist in two categories, public or private, the latter funded by private organisations while the former are funded by the government. As of March 2017, there were thirty public chartered universities and five university constituent colleges established. Privately sponsored chartered universities numbered eighteen, private university constituent colleges, five, and institutions with Letters of Interim Authority, thirteen. This brings to seventy-one the total number of public and private universities inclusive of constituent colleges in the country (CUE, 2017).

In universities today, promotion is based on the number of publications a faculty member has published, teaching experience, number of postgraduate students supervised, contributory roles to the community and to the university, and research funds attracted. The requirements increase with the seniority of the position. In measuring and evaluating universities' performances using webometric rankings, research publications, citations and web visibility are considered important indicators.

## 2 Research and scholarly publishing in Kenyan universities

The Association of Research Libraries (2014: 1) defines scholarly publishing as: "the system through which research and other scholarly writings are created, evaluated for quality, disseminated to the scholarly community, and preserved for future use". In Kenya, institutions of higher education exist to fulfil these functions. Research is one of the core pillars of any university system (Migosi, Muola and Maithya 2012: 116). Kinyanjui (2007: 7) stated that

research should be made an integral part of the responsibilities of every academic member of university staff and academic staff should be evaluated and appraised annually on the basis of research output, in addition to teaching, administration, mentoring and community service.

According to Rotich, (2010: 2), the University of Nairobi has intensified collaboration with both local and international partners, which has resulted in a substantial increase in available research grants. Moi University has a research directorate, which collaborates with researchers within and outside of the university. The university sets aside funds under its research grant which are awarded on a competitive basis. Maseno University has established the Centre for Research and Technology Development to enhance the capacity to undertake research and technology development and manage research activities.

Despite the above, Migosi, Muola and Maithya (2012: 116) and Ngome (2003: 359) observed that one of the key factors that stunted the growth of research in the Kenyan university system was inadequate research funds, though a large portion of support (although inadequate) for postgraduate and staff training and research was contributed by donors and international organisations. It was similarly pointed out by Rotich (2010: 2) that it is hard for Kenyan universities to support research because most of them are severely constrained by inadequate funds and most research activities depend on donor support. With regards to information resources, Kenyan universities rely mostly on electronic resources as they are members of the Kenya Library and Information Service Consortium (KLISC). They also access e-resources through the Association of Health Information and Libraries in Africa, Kenya chapter (KEN-AHILA) and Electronic Information for Libraries (EIFL). Other initiatives that universities in Kenya use to access research and scholarly resources include Program for Enhancement of Research Information (PERI) managed by Network for Availability of Scientific Publications (INASP) and Electronic Supply of Academic Publications (eSAP), (Rotich & Munge, 2007: 67). Pho and Tran, (2016: 16), stated that funding posed the biggest obstacle to both local and international publication. However, through various policies and the establishment of institutions, the issue of research funding is being addressed by the National Research Fund (NRF) and National Council of Science, Technology and Innovation (NACOSTI).

## 3 Problem and purpose of the study

Universities in Kenya are required by law to promote research and scholarly publishing and CUE was established to ensure that universities meet the highest standards in these areas. Universities are required to identify research areas and to set aside adequate financial resources to meet their research obligations. Every university should clearly stipulate its appointment criteria and should take into account research activities when determining academic staff workload. They should also help facilitate staff research, including providing incentives to members of staff who undertake research. They should document and disseminate research outputs but also provide evidence of the promotion of quality research and innovation. Currently, all academic programmes (existing and new) must indicate what print and electronic resources are available in their respective universities. Universities are required to have anti-plagiarism policies and systems to ensure high standards of scholarly work. Recently, CUE has set the standard for all postgraduate students to publish their research

findings in refereed scholarly journals before their graduation; this instruction has emphasised the importance that the Commission places on dissemination of research output.

There is no established procedure to show that universities comply with the above, and there is no evidence of compliance even though it is mandatory for CUE to conduct an annual audit of all universities in the country. Therefore, it is necessary to examine the role of universities in promoting research and scholarly publishing, therein establishing what CUE has achieved so far. The purpose of this study, therefore, was to investigate the role of Kenyan universities in promoting research and scholarly publishing and recommend strategies for improvement. This paper attempts to answer the following questions:

- What is the role of the Commission for University Education in promoting research and scholarly publishing in Kenyan universities?
- What incentives do Kenyan universities offer to promote research and scholarly publishing?
- What challenges are faced by Kenyan universities in promoting research and scholarly publishing?

#### **4 Research Methodology**

The study used a case study research design. The population for the study consisted of academic and administrative staff, Information and Communication Technology (ICT) personnel, and directors – all from the two purposively sampled universities, namely the Technical University of Kenya (TUK) and Strathmore University – and officers from CUE. The researchers distributed ninety-five self-administered questionnaires: eighty questionnaires were distributed to lecturers and fifteen questionnaires to the chairpersons of departments of the two universities. At the end of the exercise, seventy (87.5%) questionnaires from lecturers and ten (66.7%) questionnaires from chairpersons of departments were returned. Interviews were conducted with key informants from CUE and the universities. The key informants (purposively sampled) included: deputy vice chancellors in charge of academics and research, directors of schools, deans of schools, directors of research, chairpersons of departments, lecturers, librarians and heads/directors of ICT. At CUE, the study targeted the Director of Research in the Planning, Research and Development Division.

#### **5 Results and Discussion**

The results captured constitute evidence of the role of Kenyan universities in promoting research and scholarly publishing.

##### **5.1 The role of CUE in promoting research and scholarly publishing in Kenyan universities**

Universities in Kenya are mandated to promote research and scholarly publishing and, as mentioned, CUE was established to ensure that universities meet the highest standards in promoting research and scholarly publishing. The findings of this study revealed that CUE does not play any role in promoting research and scholarly publishing in universities. Forty (57.1%) lecturers said CUE does not play any role in promoting research and scholarly publishing, twenty-three (32.9%) lecturers said CUE plays a role in promoting research and scholarly publishing, and seven (10%) had no idea about the role CUE plays in this regards. Thus, few respondents were of the view that CUE plays a role in promoting research and scholarly publishing. Those who felt it did, names the following as the role that it plays: encouraging academic staff to undertake PhD studies; considering research output in evaluating programs; emphasising curriculum review and development; regular auditing; issuing guidelines on recruitment and promotion; and encouraging collaboration and faculty members to do research. Probed further as to whether there was any evidence to show that CUE has performed its objective of promoting research and scholarly publishing, fifty-six (80%) lecturers said there is no evidence, seven (10%) said there is evidence and another seven (10%) said they did not know. Those who said there is evidence said it was not explicit. The study showed that CUE is reluctant to promote research and scholarly publishing. Most key informants from universities viewed CUE as a regulatory body and acknowledged NACOSTI for taking on the role of promoting and supporting research. The respondents were of the view that CUE policies are clear but their implementation poor. It was reported that there is a communication breakdown between CUE and universities.

Key informants from CUE said universities lack transparency in releasing information to CUE. They were of the view that universities are not providing them with the correct figures. The study established that CUE, in its efforts to promote research and scholarly publishing, organises forums and conferences with universities and other stakeholders for presentation of university research output. Other than that, CUE has not done much in terms of promoting research and scholarly publishing. The study established that there is no evidence to show that CUE has performed its objective of promoting research and scholarly publishing in terms of providing funding either to universities or directly to scientists. They have, however, provided regulations indicating the need for postgraduate students to publish research findings before graduation and for lecturers to publish in scholarly journals before promotion. It was further discovered that there is some duplication in the roles of NACOSTI and CUE in terms of promoting and supporting research activities. CUE informants

prefer working together with NACOSTI to promote research rather than overlapping with it. From the findings, it is clear that there is a poor relationship between CUE and the universities in Kenya with regards to promoting research and scholarly publications. The research indicated that CUE's role in promoting research and scholarly publishing has not yet been fully realised at universities.

### 5.2 Incentives offered by Kenyan universities to promote research and scholarly publishing

Okemwa (2007: 13) stated that remuneration and other monetary rewards are good incentives for scholars. However, there are other incentives which can produce an enabling environment for scholarly publishing. These may include, for example, maintaining adequate infrastructure in institutions of higher learning and maintaining the recognition associated with higher education. Such incentives can encourage scholars, not only to want to publish, but also to add value to the body of knowledge in their discipline. This paper sought to discover if there are incentives offered by universities to faculty members who undertake research and scholarly publishing. It was found that thirty-five (50%) lecturers said incentives existed for those who conducted research and publish findings, thirty-three (47.1%) lecturers said there were no incentives, while two (2.9%) were not aware of whether there were any or not. The incentives reported included: facilitation to attend conferences for presentations of research outputs (both local and international); accommodating work schedules; PhD scholarships; monetary rewards; consideration for promotion; annual salary increments; recognition on the university website; and time off (sabbatical leave). It was established that the incentives offered to university faculty members who undertake research are ineffective and that lecturers were not aware of the mechanism around their provision.

It was noted that incentives were offered to those faculty members who had more publications. However, the incentives were ineffective either because people lacked the determination and desire to publish or, if they published, it was for the sake of publishing only; incentives were therefore stopped. The results revealed that researchers are assisted in undertaking research, showing that universities are putting in more effort in terms of motivating researchers. Their attempts at motivations include: a conducive working environment; good working space; access to the library (e-resources) and training; encouraging the academic staff to carry out research; funding researchers for presentations at conferences; and collaboration with industry and other universities locally and internationally.

### 5.3 Challenges faced by Kenyan universities in promoting research and scholarly publishing

According to Sawyerr (2004: 211), research capacity includes the quality of the research environment, funding, adequate infrastructure, research incentives, and time available to the researcher. Negative institutional conditions such as poor infrastructure (equipment, laboratories, libraries, and so forth) and lack of funding impose clear limitations on research and research capacity development (Sawyerr 2004: 211). The findings from this study revealed that universities face many challenges in promoting research and scholarly publishing, including: inadequate research funds; poorly funded libraries; lack of professional equipment; poor university industry linkages; lack of incentives; and brain drain (Table 1).

**Table 1 Challenges faced by Kenyan universities in promoting research and scholarly publishing**

	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
	n	%	n	%	n	%	n	%	n	%
Limited freedom of expression	8	11.4	12	17	14	20	28	40	8	11.4
Inadequate research funds	34	48.5	25	35.7	11	15.7	0	0	0	0
Brain drain	17	24.2	23	32.8	18	25.7	12	17	0	0
Lack of incentives	26	37.1	26	37.1	12	17	6	8.5	0	0
Lack of research facilities	19	27	23	32.8	13	18.5	14	20	1	1.4
Poorly funded libraries	21	30	27	38.5	11	15.7	11	15.7	0	0
Lack of professional equipment	29	41.4	14	20	16	22.8	9	12.8	2	2.8
Poor university industry linkages	14	20	34	48.5	11	15.7	5	7	6	8.5
Lack of access to the internet	3	4.2	15	21.4	12	17	18	25.7	22	31.4

The findings indicated that there was general consensus among respondents that inadequate research funds was a great problem: a total of fifty-nine (84.2%) strongly agreed and agreed that the problem exists in universities. The respondents agreed that other challenges exist: a total of fifty-two (74.6%) agreed on lack of incentives, forty-eight (68.5%) agreed that libraries are poorly funded, and another forty-eight (68.5%) agreed that there is poor university industry linkages. On the other hand, forty-three (61.4%) and forty-two (59.8%) agreed that there is lack of professional equipment and research facilities respectively, while forty (57%) agreed that brain drain was a challenge. However, thirty-six (51.4%) and forty (57.1%) respondents disagreed that limited freedom of expression and lack of access to the internet, respectively, were a challenge.

The study also established other challenges faced by faculty members while undertaking research. These included: lack of goodwill at relevant levels; stagnation among faculty members; lack of facilitation of foreign trips to use advanced technology; challenging operating environments with limited resources; lack of accountability; a balance between teaching load and research; lack of university supported journals and accrediting of journals; poor data collection by state agencies; and lack of research culture. The challenges reported by key informants in universities included:

- Research funds and incentives. It was reported that funds are inadequate and incentives have influenced lecturers to take on part-time teaching rather than do research.
- Lack of expertise. The study showed that nurturing young researchers has been a problem due to the few professors in universities and therefore a lack of experts in the field.
- Time for research. It was indicated that faculty staff do not have time for research since they have to balance research and teaching. Informants were of the view that time has always been an excuse for not undertaking research and publishing.
- Poor research culture, which has resulted in a lack of research-oriented faculty members.
- The study identified other challenges, including training for research; selfishness amongst researchers; poor management; weak university industry linkages; inadequate equipment and research infrastructure; and space in which to conduct research.

## 6 Conclusion

Research and scholarly publishing is indeed a pillar of any university system and, as such, faculty members of universities are expected to undertake research and disseminate their findings. This view is compatible with studies by Migosi, Muola and Maithya (2012: 116) and Nyaigotti, (2004: 6). Universities have to invest in promoting research and scholarly publishing. The results from this study indicate that lecturers and universities in Kenya are aware of the importance of research and scholarly publishing and are working towards its promotion. These findings are congruent with the research findings of Kinyanjui (2007: 7), who pointed out that research should be made an integral part of every academic post at the university. However, there is ineffective documentation of publications through the institutional repository. Findings from this study are in contrast with those of Pho and Tran (2016: 16) who observed that most universities in Vietnam still put more effort into teaching than into research. If lecturers fulfilled the required number of teaching hours every year, they would be promoted every three years despite not publishing.

This study established that there is a poor relationship between CUE and universities, evidenced by universities accusing CUE of overstepping its mandate. On the other hand, CUE accuses universities of lack of transparency. CUE is mandated to promote research and scholarly publishing in universities. Findings showed that CUE does not play an active role in promoting research and scholarly publishing and there is no known evidence or documentation to show that CUE has performed its objective of promoting research and scholarly publishing in terms of providing funding either to universities or directly to researchers. CUE has been passive in performing its objectives of promoting research and scholarly publishing. CUE was viewed as a regulatory body and NACOSTI was recognised for promoting and supporting research. CUE's policies are clearly stated but the implementation is poor. The study also noted that there is a communication breakdown between CUE and universities.

The study established that incentives offered to university faculty members by Kenyan universities are ineffective and the lecturers are not aware of the criterion for providing incentives. The study identified challenges encountered by university faculty members while undertaking research and scholarly publishing. This was evidenced by ineffective documentation of publications, inadequate or no funding at all, poor research infrastructure, inadequate working space, and inadequate time for undertaking research. These findings are in agreement with those by Okemwa (2007: 12), who observed that most institutions of higher learning in Kenya are not financially well-endowed, scholars are not well-supported financially, many research facilities are outdated and libraries are poorly funded.

These findings conform to those by Sharma (2014: 9) who also observed that many scholars in Asia work in institutions which are not financially well-endowed. Therefore, the situation in Asia seems similar to the one in Kenya. This study was supported by the findings of Ngoben (2012: 15) who stated that scholarly publishing in Africa has suffered from lack of government funding. Ngome (2003: 359) stated that one of the key factors that affected the growth of research in the Kenyan University system was inadequate research funds, while Rotich (2010: 7) suggested that universities in Africa, especially in Kenya, must increase funds allocated to research and the dissemination of findings. These results are consistent with those of Sawyerr (2004: 211) who found that research capacity includes quality of the research environment, funding, adequate infrastructure, research incentives, and time available to the researcher.

The findings show that Kenyan universities are making more effort to promote research and scholarly publishing by improving the research infrastructure and motivating, encouraging and facilitating university faculty members to undertake research and disseminate findings.

## **7 Recommendations**

Based on the findings of the study, seven recommendations are made below.

### **7.1 Effective documentation of publications disseminated through the university website**

This paper proposes effective documentation of publications disseminated through the university website to ensure increased web presence of the university faculty members and recognition on the web. This recommendation will also make it easier to count the number of publications for each member of the university faculty, which is a requirement for promotion. Effective documentation will also help the university during webometric rankings of universities where publications and web visibility are considered important indicators.

### **7.2 Enhanced research funding and capacity**

The findings revealed that there is inadequate funding for research. Universities should allocate more funds to research by obtaining funds from sources other than the two percent provided by the government. Universities should collaborate with funding agencies, train staff on how to source funds, and engage in business to acquire more funds for research. If funds are increased, the universities will be able to pay for publication of research findings by faculty members, sponsor their conference attendance, pay for their presentations at conferences, and provide incentives for faculty members.

### **7.3 Improved access to research infrastructure**

Improved access to research infrastructure could be achieved by investing more in internet connectivity and the library. Since most of the libraries in Kenyan universities have access to current electronic academic resources through KLISC, lecturers and researchers should improve their searching skills and embrace emerging technologies for research and scholarly publishing. The internet speed should also be improved to enable sharing of research and scholarly materials globally. Research centres should be created. Staff expertise should also be improved, for example, by employing more professors to nurture younger researchers and scholars, and through training. Universities should provide a good working environment for research; that is, adequate space and time for research. Additionally, lecturers should be proactive by exploiting available opportunities such as requesting sabbatical leave to focus on research.

### **7.4 Improved communication between CUE and universities**

This study established that the relationship between CUE and universities is poor. There should be improved, reciprocal communication between CUE and universities. As much as CUE expects universities to comply with its policies, guidelines and standards, it should also consider the challenges faced by universities. CUE should provide a communication network whereby universities can provide feedback on matters affecting them. This feedback will help CUE work with universities in addressing the challenges and agreeing on the most appropriate solutions, resulting in a platform where transparency is achieved.

### **7.5 Policy implementation and performance documentation**

CUE should implement their policies and provide documentation on their performance. The study also recommends that CUE embrace a more participatory approach to universities in creating policies in promoting research and scholarly publishing.

### **7.6 Research incentive scheme**

The study established that incentives offered to university faculty members by universities are ineffective and that lecturers were not aware of the criterion for incentives. Universities should provide a research incentive scheme that is fair to all the members of the university faculty.

### **7.7 Facilitation and motivation of university faculty members**

The study established that university faculty members experienced challenges while undertaking research and scholarly publishing. It is therefore recommended that universities facilitate and motivate their faculty members to undertake research while CUE plays an active role in promoting research and scholarly publishing by Kenyan universities.

## **References**

Association of Research Libraries. 2014. Scholarly Communication. [Online]. <http://www.arl.org/focus-areas/scholarly-communication> (29 May 2017).

- Commission for University Education. 2017. Status of universities: universities authorized to operate in Kenya. [Online]. [http://www.cue.or.ke/images/docs/Accredited\\_Universities\\_in\\_Kenya\\_November\\_2017.pdf](http://www.cue.or.ke/images/docs/Accredited_Universities_in_Kenya_November_2017.pdf) (7 January 2018).
- Darko-Ampem, K.O. 2003. Scholarly publishing in Africa: a case study of the policies and practices of African university presses. PhD thesis. University of Stirling. [Online]. <http://hdl.handle.net/1893/71> (8 January 2018).
- Kinyanjui, K. 2007. The transformation of higher education in Kenya: challenges and opportunities. Paper presented at the Mijadala on Social Policy, Governance and Development in Kenya. 9 July. Nairobi Safari Club.
- Maher, J.V. 2006. The research university and scholarly publishing: the view from a provost's office. *Association of Research Libraries*, 249: 1-11.
- Migosi, J. A., Muola, J.M. and Maithya, R. 2012. Perceptions of academic staff on research and publishing in Kenyan universities. *International Journal of Education Administration and Policy Studies*, 4(4): 115-126. [Online]. [http://41.89.55.71:8080/xmlui/bitstream/handle/123456789/65/Migosi\\_%20Perceptions%20of%20academic%20staff..pdf?sequence=1&isAllowed=y](http://41.89.55.71:8080/xmlui/bitstream/handle/123456789/65/Migosi_%20Perceptions%20of%20academic%20staff..pdf?sequence=1&isAllowed=y) (25 March 2017)
- Ngobeni, S. 2012. *Challenges facing the African university press*. Leiden: African Studies Centre. [Online]. <https://openaccess.leidenuniv.nl/handle/1887/19532> (8 January 2018).
- Ngome, C. 2003. Country Higher Education Profiles: Kenya. In *African higher education: an international reference handbook*. D. Teferra and P. G. Altbach Eds. Bloomington: Indiana University Press.
- Nyaigotti, C. 2004. Reforming higher education in Kenya: challenges, lessons and opportunities. Paper presented at State University of New York Workshop with the Parliamentary Committee on Education, Science and Technology. August. Naivasha, Kenya. [Online]. <https://pdfs.semanticscholar.org/fc9a/632255e461300b9aea588050e32ca4cdd8e5.pdf> (8 January 2018).
- Okemwa, E. 2007. Scholarly publishing in sub-Saharan Africa in the twenty-first century: challenges and opportunities. *First Monday*, 12(10). [Online]. DOI:10.5210/fm.v12i10.1966.
- Pho, P.D and Tran, T.M.P. 2016. *Obstacles to scholarly publishing in the social sciences and humanities*. Ho Chi Minh City: Vietnam National University.
- Rotich, D. C. and Munge, E. M. 2007. An overview of electronic information resources sharing initiatives in Kenyan universities. *South African Journal of Libraries and Information Science*, 73(1): 64-74.
- Rotich, D.C. 2010. The present and future growth of scholarly publishing in Africa. In *Demystifying and popularizing LIS research in modern times: proceedings of 11th DLIS Annual Conference*. D.N. Ocholla and N. Evans, Eds. Richards Bay: University of Zululand. 44-51.
- Sawyer, A. 2004. African universities and the challenge of research capacity development. *Journal of Higher Education in Africa/RESA*, 2(1): 213-243. [Online]. [https://www.jstor.org/stable/24486132?seq=1#page\\_scan\\_tab\\_contents](https://www.jstor.org/stable/24486132?seq=1#page_scan_tab_contents) (8 January 2018)
- Sharma, G. 2014. *Transforming open access scholarly publishing and scientific delivery: challenges and opportunities in Asian regions*. Dhulikhel: Kathmandu University.