# Enhancing Access to Research Information Through Information Dissemination: The African Economic Research Consortium (AERC), Nairobi Secretariat

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**Abstract**

The study explored ways, mechanisms and methodologies of enhancing access to research information through information dissemination while using the African Economic Research Consortium (AERC), Nairobi Secretariat as the case study. This was achieved through four specific objectives which include; examining the existing information dissemination methods, channels and technologies at AERC; determining policy guidelines in information dissemination at AERC; establishing challenges in dissemination of research information at AERC and suggesting best practices in dissemination of research information at AERC. The study applied a quantitative design where quantitative research approach was used. Research questionnaires were the main data collection tools that were used to collect primary information from respondents. The study population was comprised of the information professionals, and researchers at the African Economic Research Consortium (AERC), Nairobi Secretariat who formed a total number of 122 subjects as targeted population. The population was stratified into two strata of information professionals and the researchers' stratum. A sample of 50 percent was sampled from the population to make a sample of 61 respondents. This was achieved through random sampling techniques given the assumption that all subjects in the same stratum operated under the same environment. The study concluded that there exist many methods, channels and technologies that are used in dissemination of research information at AERC. However, these methods, channels and technologies are faced with several challenges which constraint the process of dissemination of the research information to the targeted audiences. Such challenges include but not limited to poor ICT infrastructure, poor reading culture, inadequate information management personnel, economic constraints to information management activities, curtailing legal framework such as privacy laws and non-adoption of freedom of information in the local legal framework. As such, it is important to appreciate that such challenges need to be addressed through adoption of best practices that promote dissemination of information. These include but not limited to adoption of freedom of information principles, promotion of public interest, promotion of reading culture, improvement of ICT infrastructure and increased funding of research related activities that include dissemination initiatives.

**Keywords:** Knowledge Management, Dissemination of Research Information, Information Management, Research Information

## 1. Introduction

AERC is a public Non-Governmental Organization established in and operating in sub-Saharan Africa. It has its head office in Nairobi, Kenya. Its core business is informing policy decision making in economics. AERC has two main divisions: Research and Training. With its emphasis on quality and policy relevance, the research agenda and programme of activities are intended to position AERC firmly in global context. The research programme has both thematic and collaborative approach.

Training involves developing curriculum for Masters and PhD programmes in Economics and offering scholarships through selected Universities across sub-Saharan Africa, currently standing at forty-three universities. It holds a Joint Facility for Electives in Nairobi every year for all sponsored students from the selected Universities for five months beginning June through November. The graduating Masters students form the next pool of PhD students while PhD graduates join the expanding pool of researchers, and end up in positions of policy decision making, lecturers or simply researchers in various organizations.

Inefficiency of research information dissemination process has led to breakthrough research information not getting to the relevant stakeholders in time and in a consumable form and at times not getting to them at all. This is a challenge that needs to be overcome to make research information readily available soonest to the pertinent audiences and thus enable the effective utilization of the information in policy and decision making.

In certain circumstances, researches have been duplicated due to absence of prior knowledge of information relating to previous researches. This has contributed to a considerable extent waste of resources such as finance, human resource and time that could have been used in the implementation of recommendations of initial researches. Inaccessibility of this information is pegged on poor dissemination structures. Thus, it was important to explore mechanisms that can be applied to help enhancing accessibility of research information to its relevant audience.

The aim of the study was to assess the current level of research information dissemination for the AERC and explore the mechanisms to improve its dissemination to relevant audience. Therefore, the study strived to achieve

its aim by examining the existing information dissemination methods, channels and technologies at AERC; determining policy guidelines in information dissemination at AERC; establishing challenges in dissemination of research information at AERC and lastly suggesting best practices in dissemination of research information at AERC. The study focused on ways of enhancing access to research information through information dissemination at the African Economic Research Consortium (AERC), Nairobi Secretariat.

## 2.0 Dissemination and Access to Research Information

Researchers world over have shown the need for a wider access to information contained in research findings from different research institutions hence dissemination of the same research information to the researchers through different means being an imperative phase of any research. Publishing of the research findings for dissemination both in electronic and print formats thereby provides a means for easier Information searching and retrieval of the same research works in worldwide.

## 2.1 Importance of Dissemination of Research Information

There are a number of benefits researchers, institutions, nations and society as a whole benefits from enhanced dissemination of research information. For researchers, it brings increased visibility, usage and impact for their work. Institutions enjoy the same benefits in aggregated form. Choo (2002) opine that there is a growing evidence to show that countries also benefit because dissemination of research information has been enhanced. Some of the benefits include informed investments which results to better return on investment.

Traditionally, Etim (2001) noted that journals have been sold on subscription to libraries in the age of print-on-paper which was the only model available that enabled publishers to disseminate journals and recoup the cost. Unfortunately, this meant that only researchers in institutions that could afford to pay the subscription charges were able to read journal articles. Even wealthy universities could only afford a proportion of the world's research literature. For institutions in poorer countries this proportion is tiny or even non-existent. At the beginning of this millennium, more than half the research-based institutions in the poorest countries had no current journal subscriptions and over 20 percent had an average of two subscriptions. This limited circulation of the research finding hence closing information to the bigger proportion of who would be consumers of the information. Hence, economic, social and political benefits that could improve the society from such researches were closed only for a few.

However, according to Bullock (2006), in the age of the internet, it is possible for research findings to be disseminated free of charge to anyone who wishes to read them. Those who do not have the journals they want in their library can use Google or other Web search engines to track down the unrestricted access literature in institutional and subject repositories. This has facilitated access to research information. Importantly, Curry and others (2000) note that developing country repositories also enjoy an elevated level of usage of repositories, which are at last providing to the rest of the world the outputs from scholars in those countries who previously had difficulty publishing in 'western' journals. Efforts to improve dissemination of research information have hence improved all aspects of life ranging from economic to social and political landscape both in the developed and developing worlds.

## 2.3 Information Dissemination Channels, Methods and Technologies

Dissemination channel designates the means for passing on knowledge and information to audience members or end users. Kirst (2000). The literature from many different fields and sub-specialties makes clear that single-channel dissemination is ineffective, and that multichannel strategies have the greatest likelihood of reaching intended audiences and achieving the required results. According to Curry and others (2000), the effectiveness of a given dissemination strategy depends on multifaceted factors such as the characteristics of the innovation, the target audience, and the information channel itself. The strategy that works well for transmitting general information to the masses may be inappropriate for communicating specific research findings to policy makers. Getting the proper fit among the innovation, information channel, purpose, and target audience is therefore important.

Nonetheless, it is important to appreciate the fact that the current world consists of advanced technologies, methods and channels which are used to pass information from one region to the next. According to Bullock (2006), these channels and technologies include Information and Communication Technologies (ICT) that are rapidly transforming the way people learn, live and work. Indeed, as it was pointed out by Choo (2002), the worlds of information management, communication, publishing and research are undergoing a massive transformation with researchers becoming "specialists" at the click of a keyboard. According to him, researchers are now more able to connect to their peers, publish rapidly and disseminate their own work than ever before. Nonetheless, despite numerous problems of using the Internet in Africa and other developing countries of the world, it has become a preferred medium for many researchers.

Apart from ICTs, there exists other channels, methods and technologies that can be used in dissemination of

research information. The information channels around which to strategize range from mass media to mass mailings, from print media to electronic media, from telephone contacts to face-to-face contacts. The purpose for all these include informing, educating, and selling.

Adams and Hamm (2006) postulated that the usefulness of each channel varies for differing innovations, for differing stages in the innovation process, and for soft vs. hard technology transfer. Creating the proper fit begins with understanding the effectiveness areas of each media. Creating the proper fit also includes recognizing that no one channel is always sufficient (Reardon & Rogers, 1988).

### 2.3.1 Mass Media

In support of Choo (2002) affirmed that mass communication is an important dissemination tool for research information which includes electronic and print media. Electronic media on the other hand includes radio, television, teletext, videotext, and satellite telecommunications. Print media on its hand encompasses books, newspapers, magazines, newsletters, and comics. Historically, as each new media entered the scene, owners of existing forms of mass communication reassessed the futures of their respective media. Bullock (2006) on his part noted that the advantages and disadvantages of each form of mass communication provide guidance for selecting the best medium to fit the intended audience and the dissemination purpose.

### 2.3.2 Change Agents

According to Curry and others (2000), change agents link research sources with organizations and societies interested in change. Change agents may also be known as research utilization specialists, organization developers, consultants, or integrators. They facilitate communication about research results and the needs and problems of a specific group. Area Extension Personnel serve as a good example of change agents as they serve as change agents for local and regional community changes (Goudy and Wepprecht, 1977). Guffey and Almonte (2009) noted that change agents provide summaries of a large community-based research study through the media, via mail, and presentations in town or community meetings (*village barazas*). In doing so, they help to structure planning and implementation programs to bring about changes identified by residents in designated rural communities.

### 2.3.3 Information Service Systems

Information service systems include libraries, clearinghouses, online retrieval services, information and referral services, and centers whose primary role is information storage, retrieval, and dissemination or laboratories whose primary role is repackaging of information. Information service systems vary in how users access and use them as some can be accessed by phones, mail, computer modem, or in person. In addition, their differences may be in the nature collections of information as some are highly specialized such as Library of Medicine while others are general such a public library. In addition, Choo (2002) pointed that some systems are electronically accessed and may represent collections from other smaller systems. All these systems facilitate dissemination of research information but their effectiveness is based on a multifaceted of factors such as the targeted audience, the intended purpose of the information among others.

### 2.3.4 Training and Educational Programs

Training and educational programs have been a significant dissemination strategy. According to Adams and Hamm (2006), some of these programs include pre-service and in-service educational programs are also referred to as professional preparation programs. In-service refers to education provided on the job in the form of induction training, apprenticeships, and short-term workshops or courses. Both offer vehicles for getting new knowledge into practice. Programs can be used effectively to disseminate research information especially in highly specialized fields where coaching and mentorship is imperative. However, Walshe (2011) noted that one of the major weakness of this method is its limited scope in terms of geographical coverage and the number of people who can be involved in the program as it required limited number of participants for it to be effective. Therefore, it becomes impossible to use the method to disseminate research information to a bigger audience.

### 2.4 Challenges in Dissemination of Research Information at AERC

There exist several challenges that face dissemination of research information globally which also comes into play at the local level. Some of the challenges are channel, method or technology specific while others cut across all these media. For instance, there have been challenges with information management strategies. In support of this, Kiplang'at (2010) asserts that the increasing demand for online facilities for research information has created challenges in determining how to organize these electronic systems efficiently and effectively. Some inexpensive approaches can contribute to a vibrant and cost-effective system of information management. For example, continuous updating of the database is essential. Updating must be done on a regular basis and accomplished in a culture of openness.

In addition, other general challenges to dissemination of research information relates to human resources. The information management skills of personnel in the different service centers vary. These differences greatly affect the level of participation by personnel and the quality of information provided by the service centers. Based on this, Guffey and Almonte (2009) noted that there is a clear need to upgrade the skills of staff at the various centers on a continuous basis. After training, staff are expected to transfer their acquired skills to new partners. Besides,

Curry and others (2000) opined that many of the service centers cannot afford the prohibitive costs of continued training programmes. However, attempts must be made to train and develop capacities of people entrusted with the role of facilitating transfer and dissemination of information for the process to attain its intended goals.

Most of the publications may be in digital format, which are easily availed to users who can easily search and retrieve. An electronic publication requires a country to have proper infrastructures such as high-speed Internet connectivity, power, computers and information searching and retrieval skills etc, to facilitate access to such information by all (Kiplang'at, 2010). In recent works, problems that specifically limit access to online research information in developing countries include; inadequate and cost-prohibitive electronic access to research journals, slow Internet access speeds and the prohibitive cost of Internet access.

In addition, it was noted that some libraries and librarians have concentrated on traditional resources and services, which may be an obstacle to information access and use. The explosion of information is obviously a challenge to libraries. Recognizing its importance, information is increasingly sought in an increasing number of situations by an increasing number of people. This has increased the volume of available information. The advancement of knowledge is made possible by research and scholars in all fields. Coupled with this, is the fusion and fragmentation of disciplines and knowledge. As these break down into smaller segments, the scholarly literature becomes more specialized. In addition, there are thousands of other information packages, e.g., journals, magazines, and newspapers, being turned out by an ever-expanding publishing industry. The electronic media also produce vast volumes of information.

Aguolu and Aguolu (2002) state that, "the high rate of inflation in Nigeria and abroad undermines the acquisition capacity of libraries." Library materials are ordered from countries with a higher standard of living, and prices of books and journals are fixed for societies with higher levels of income. Foreign exchange restrictions, bureaucratic procedures with import licenses, and customs regulations are among the challenges facing libraries. Nonetheless, there continue to be many people and communities without adequate access to ICT in the developing world. In view of this, the above-mentioned research topic will help in finding the effective way of developing a mechanism for enhanced dissemination of research information.

## 2.5 Best Practices in Research Information Dissemination

There are special approaches that can be applied in dissemination of research information that can improve availability and accessibility of this information. To be effective, research information dissemination plan must follow specific best practices in the dissemination process. This according to Kiplang'at (2010) includes being based on an analysis and understanding of audience needs and interests. Any research information is intended to address the needs and requirements of a specific audience. Therefore, it is important that such information is disseminated; the disseminator must strive to understand the needs of such a group to be in a position to address them.

In addition, Guffey and Almonte (2009) provides that as part of best practices in information dissemination, efforts should be made to understand the information that users have identified as important, and information that users may not know to request but they are likely to need. Any information provider should be able to address all information needs both expressed and unexpressed. Additionally, an information provider should incorporate the kinds and levels of information needed into the forms and language preferred by different audience groups.

As part of best practices in information dissemination, the provider should use varied dissemination methods which include written information, electronic media, and person-to-person contact, consultation and facilitation depending on the assessed audience capacity. Importantly, when disseminating research information, effective quality control mechanisms should be included to ensure that information to be included in the system is accurate, relevant and representative. Guffey and Almonte (2009) add that the disseminator should incorporate consistent evaluation efforts to facilitate structured, formalized feedback from audience members, and adjust where necessary.

## 2.6 Policy Guidelines in Research Information Dissemination

Success of research information is dependent on whether the information is disseminated to the right audience and in the right manner. However, for this to be possible there is a need for an institution or an organization to have policy guidelines in place to govern the dissemination process. As part of the guidelines, information dissemination channels, modes should have clear objectives to be more effective in identifying target groups of users and designing content. The objectives should be closely related to the institution's mission and vision.

Importantly, apart from the organizational policies and guidelines, there exist several regulatory frameworks that guide dissemination of research information. These include data protection laws, Freedom of Expression (FOI), privacy laws, human rights among others. Hence, these pieces of legislation are used to evaluate how they achieve a balance between the interests of the public good and the individual or institutional rights that guides in dissemination of information in general. In doing so, the study explores the need to protect the privacy of an individual or institution in disseminating research information while recognizing that this right is not absolute. As such public good, social benefits and national economic interests is looked at as some circumstances where

individual's privacy is overridden. Importantly, how the law tries to achieve a balance between public good should be given prominence in matters of disseminating research information.

On the other hand, freedom of expression in law has in most cases been premised as a balance between public interest and individual privacy (OECD, 1999). The media are a general institution that always use freedom of expression as a counter measure to individual privacy rights as spelled out in the Data Protection regulations. According to Kiplang'at (2010), the same premise should be applied when disseminating research information which in most cases is usually for the public good.

Additionally, the Freedom of Information principle was adopted to promote public interest in accessing information from public bodies that provide utility services (Rotenberg, 2002). The legislation's main priority is to facilitate public access to information. However, this Act is at times constrained by the Data Privacy principles which on the other hand, uphold privacy of individuals. Nonetheless, the legislation strikes a balance as they both acknowledge that in certain circumstances, some data that relate to personal privacy, national security and personal records among others have restricted access. Through this, Robinson (2003) affirms that both principles create a common ground between public interests and individual privacy hence should highly be considered when disseminating research information.

**2.7 Conceptual Framework**
For a research to thrive in the modern world it must operate in an information rich environment. Therefore, the future of researchers depends on the way they will integrate information in their new studies. The researcher conceptualized that if the intervening variables (infrastructure, finances, education, Information Communication Technology - ICTs) interact well with the independent variables (Sources of information, research information needs, challenges) then researchers will have access to research information and vice versa.

**Figure 1: A Framework of Business Needs**
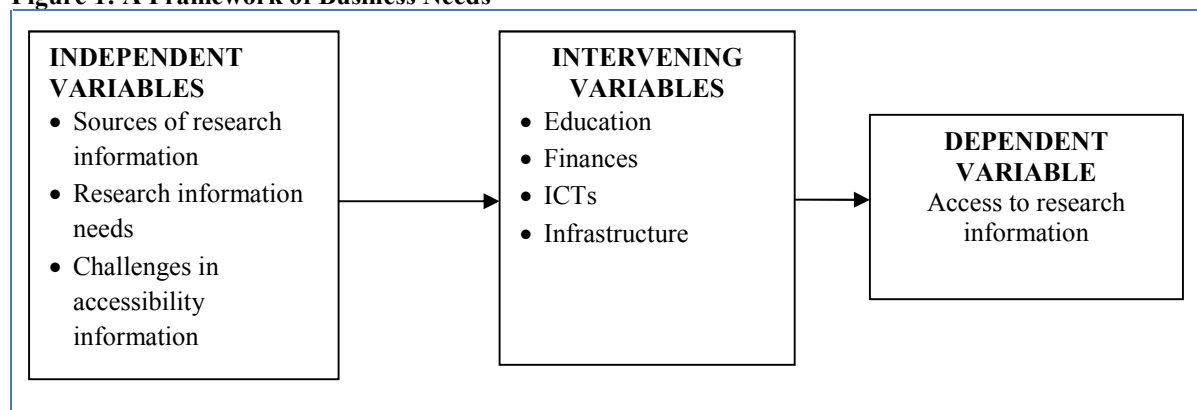


Source: Author (2015)

**3.0  Research Methods**
The study applied a quantitative design. According to Kothari, (2004), quantitative research approach is best applied when studying a social issue that can be measured numerically where behavior can be well studied. Kothari adds that quantitative research design also makes it possible to deal with data that can be obtained through questionnaires from primary sources of information. With respect to this, quantitative approach was the most appropriate design for this study since it helped to study ways of enhancing access to research information through information dissemination while using the African Economic Research Consortium (AERC), Nairobi Secretariat as a case study.  Quantitative data was collected using questionnaires. In addition, sources of data such as journals, reports were used as supplementary sources on key thematic areas of the study.

**3.1 Study Population**
Study population, according to Konar (2009) is a group of subjects that share similar attributes that need to be studied. With respect to this, the study population for this research was comprised of the information professionals, and researchers at the African Economic Research Consortium (AERC), Nairobi Secretariat. Both Information professionals and researchers were instrumental in providing information relating to mechanisms of enhancing dissemination of research information as they are the actual disseminators and users of information in this case. The total number of information professionals was 22 which comprised of 12 librarians and 10 ICT staff. On the other hand, there were 100 researchers thus the target population of the study was 122 subjects.

### 3.2 Sample and Sampling Techniques

Kothari (2004) asserts that sampling is the action of systematically selecting a percentage of the population to be used as the study subjects. With respect to sampling, the study stratified its population into two strata of information professionals and the researchers' stratum. According to Kothari (2004), 10 percent is the recommended sample of the population below 2000. However, with a population of bellow 100, Kothari recommends the entire population to be included as a sample. Nonetheless, for this specific study, the sample was comprised of 50 percent to increase precision and accuracy. Hence, both strata contributed 50 percent of its population which resulted to 11 information professionals and 50 researchers which made a sample of 61 respondents. To be able to achieve this, the study used random sampling techniques given the assumption that all subjects in the same stratum operate under the same environment. All this was made possible with the availability of registers from the personnel office of the African Economic Research Consortium (AERC), Nairobi Secretariat. The officers who were sampled were alerted through consent notes that were sent as an email given the availability of their contact information from the personnel register. They were then required to acknowledge their inclusion in the study within two weeks. Those who declined or did not respond were replaced.

### 3.3 Data Collection Methods

As earlier stated, this study employed quantitative approach which was preferred given the kind of data that was to be collected. The study therefore utilized questionnaires as data collection tools. Primary data was collected through questionnaires that were distributed to both information professionals and researchers at the African Economic Research Consortium (AERC), Nairobi Secretariat. Besides the primary sources, the study also used several secondary sources such as journal, reports relating to the topic under study to collect data.

#### 3.3.1 Questionnaire

Questionnaires were used in collection of the primary data from both information professionals and researchers at the African Economic Research Consortium (AERC), Nairobi Secretariat. Questionnaires were used since they are less costly and less time consuming when collecting information from a big number of respondents as compared to other data collection methods such as interviews. Importantly, the study used questionnaires to collect information relating to mechanisms of enhancing dissemination of research information. As such, the study could reach a large population without necessarily travelling which helped in cutting on the costs. Besides, questionnaires were comprised of easily understandable questions and the respondents were required to respond at their own convenience but in the required time frame.

### 3.4 Analysis of Data

Analysis of data was done after its collection from the sampled population. Since the study employed a quantitative approach, a variety of data analysis methods were used. To begin with, quantitative data that was collected using questionnaires was analyzed quantitatively using Statistical Package for Social Sciences (SPSS). Data cleaning was first done where contradicting information in the questionnaires was eliminated by discarding such questionnaire. Coding was done where variables were assigned some codes which were then fed into SPSS. Data was then presented inform of tables and analyzed in charts and graphs. On the other hand, any qualitative data was analyzed based on themes as per the four objectives of the study.

### 4.0 Findings

### 4.1 Existing Information Dissemination Methods, Channels and Technologies at AERC

The study established that there were some methods, channels and technologies in place for dissemination of research information. These methods, channels and technologies include Web 2.0 tools which include social media platforms such as twitter, Facebook; mass media, change agents and training programs. These were the tools which were found to be used in disseminating research information at AERC.

However, the study established that these methods, channels and technologies were faced with several challenges in disseminating research information which include poor state of ICT infrastructure, financial constraints, digital divide and poor reading culture of the targeted audiences. To address these challenges, the study established that ICT infrastructure should be improved to solve some the challenges hampering dissemination of research information; more resources should be allocated to research function and its dissemination efforts; increased awareness programs should be adopted to ensure that targeted audience understands the methods, channels and technologies used in dissemination of research information.

### 4.2 Policy Guidelines in Information Dissemination at AERC

The study determined that there were policy guidelines in information dissemination at AERC. These include data protection laws, privacy laws and public interest principles. The study revealed that these policy guidelines have impacted greatly on the dissemination of research information at AERC. As such, it was important to strengthen these policies to improve dissemination. Thus, freedom of information, public interest and unrestricted access

policies were determined to be best ways to improve dissemination of research information at AERC.

### 4.3 The Challenges in Dissemination of Research Information at AERC

In addition, it was determined that there exist several challenges that affect dissemination of research information at AERC. These challenges include human resource challenges, infrastructural problems, information explosion and economic problems as they were determined to be major challenges to dissemination of research information at AERC.

### 4.4 Best Practices in Dissemination of Research Information at AERC

The study determined that dissemination of research information at AERC can be improved through adoption and implementation of several strategies. These strategies include open access policy, adoption of freedom of information, promotion of reading culture, increased funding of information management initiatives and improvement of ICT infrastructure. With implementation of such strategies, dissemination of research information at AERC is bound to improve by ensuring that the targeted audiences of the research information can access the much-needed information.

### 5.0 Recommendations

The study recommends several measures that will help improve dissemination of research information at AERC to relevant audience.  The principle of freedom of information promotes access of information by the public. Therefore, for AERC to be able to reach its targeted audience, freedom of information tenets should be incorporated into the Kenyan legal system. Adoption and implementation of unrestricted access policy to research information through digital repositories, policy briefs, free distribution of research information products as well as dissemination through mass media and social media. Poor ICT infrastructure is a major challenge to dissemination of research information. Hence, it is important to increase investment of this infrastructure to improve availability of this information on online platforms. The study determined that audiences of research information have poor reading culture. Therefore, it is important to promote reading culture so that the targeted audiences can have the urge to read relayed information in time. One of the best ways to encourage reading culture is to repackage information into formats and platforms that entice the reader.

AERC should enhance current awareness programs to its targeted audiences to ensure that they are informed of the kind of information available and the platforms on which the information can be accessed. Updating users constantly on what's new in their areas of interest keeps their reading appetites high.

Information management initiatives suffer from underfunding of its activities. Thus, efforts should be made to ensure that such initiatives access enough resources to facilitate dissemination of research information to intended audiences.

### 6.0 Conclusion

In conclusion, it can be affirmed there exists a few methods, channels and technologies that are used in dissemination of research information at AERC. However, these methods, channels and technologies are faced with many challenges which constraint the process of dissemination of the research information to the targeted audiences. Such challenges include but not limited to poor ICT infrastructure, poor reading culture of the Kenyan communities, inadequate information management personnel, economic constraints to information management activities, curtailing legal framework such privacy laws and non-adoption of freedom of information in the local legal framework. For that matter, such challenges have continued to impact negatively to the dissemination of research information by AERC. For that matter, it is important to appreciate that such challenges need to be addressed through adoption of best practices that promote dissemination of information. These include but not limited to adoption of freedom of information principles, promotion of public interest, promotion of reading culture in the country, improvement of ICT infrastructure and increased funding of research related activities that include dissemination initiatives.

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