ISSN 2347-4289

A Study Of E-Books And C-Books Utilization By University Students And Faculties In Kenya.

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Abstract: The development in technology has brought about an increase in accessing to information, where a lot of scholarly work has been driven by the boom of the internet as an information source. Many people are now able to access any information via the internet at a click of the button from their mobile handsets, laptops or even desk tops within their reach. Many higher institutions of learning in Kenya are now adopting to using electronic books and other digital data as compared to the conventional printed books (c -books) from public universities libraries.This study tried to bring to the fore the usability of e-books among university student in comparison to the use of hard copy books in Kenyan public university libraries. The study employed a simple random sample from two (2) public universities where 400 student and 100 teaching staffs from each university under the study were randomly selected for the study. The study employed the use of self-administered questionnaire and face-to-face interview session as instruments of data collection to collect both the quantitative and qualitative data respectively. The collected data was analyzed and the results were presented in frequency tables, pie charts and graphs among other methods.The study found out that the level of c-book use wihin the university library was decreasing as the students progressed in their studies,the teaching staff on the other hand showed average use the c-books as well as e-books. The research also found out that the level of e-book use wihin the university library was increasing as the students progressed in their studies. On the accessibility and efficiency between c- and e-books utilization70.54 % of the undergraduates stated that using e-books was more efficient while 30.0 % of the undergraduates stated that c-books were more efficient for them. 37.69% of the teaching staff found working with c-books to be more efficient while 13.78% of the teaching staff stated that using e-books was more efficient for them. Among other reason on why the utilization of e- books was on the rise included the improved IT – infrastructure within the university, the availability of free and fast internet facilities, easy access to electronic books and reasoses free to download from sites such as 4shared.com and bookboom.com. The teaching staff reported that the use of e- books made it easier for t hem to teach as well as do research. The post graduates students too had a similaropinion they also stated that since they were carrying out research it was much easier for tyhem to carry e-books and share by use of memory tools such as the flash disks and virtual memory i.e. the cloud accounts. Generally the students and the teaching fraternity were able to access e-books on variety of platforms such as tablets, laptops, palm tops as well as smart mobile devices snd this made it easy fro the to do their study work as well a share the books.

Key words: e- books, c- books, utilization

1.0INTRODUCTION

Electronic books also known as e-books, digital books or e-editions are book-length publications in digital form, consisting of text, images, or both, and produced on, published through, and readable on computers or other electronic devices. These books can be accessed from the internet, cloud or from the computer where one has typed and saved as document. These can then be opened via application software's such as Microsoft office, notepad, foxit reader and adobe reader (PDF). Many e-readers access this books from a variety of sources via the web and read them from a variety of platforms. The desk top computers are installed with adobe readers and MS – office that allow users to read e-books on them. Organizations such as Amazon, with their Kindle for PC software, provide an emulator that allows a user to read their format on other platforms. A publication on the impact of e-books on the book sector in the Netherlands indicated that with the growing numbers of eBooks, e-Readers and tablets sold, the book sector was becoming more and more digitalized (Bogaard, 2012)This means that digitalization of the book sector has had a large influences on the library sector especially on the use of the C -books. Most of the e-books are usually downloaded for free or at a small fee. Sites such as bookboon.com and 4shared.com only allow one to register to get access to any book and download, in this context many lecturers, students and library users are enjoying using e-book facilities to get easy access to reading material at the comfort of their table than the use of C -books. Technologically, many Kenyans have increasingly been embracing technology with many of them buying new technologies such as tablets, smart phones and iPad to keep up with the technology. With this, approaches to accessing reading materials have slowly been moving from printed copy books to e-books since the gadgets they buy provide a perfect platform to use them. The internet access on the other hand has been made readily available by many service providers such as Safaricom and Orange. According to Safaricom magazine June 2013, it is estimated that the company one of the leading integrated communications company in Kenya has over 17 million subscribers, have access to internet via their mobile phone and modem. This then means that they can easily access the web and download books and other materials to read. Institutions of higher education in Kenya especially public universities are facing technological challenges in relation to information access both by the dons and the student fraternity. This has been brought about by the boom in technological gadgetry like the laptops, smart phones, the iPad palm- tops as well the readily available internet access that in capable to serve both the student and the teaching fraternity. Many lecture and tutorials are been delivered technologically where students get notes in soft copy as well as lecturers using computer aided teaching as a teaching methodology. Many of the lecturers argue that this provides an easy platform to content delivery as well as enabling real time scholarly work to be accessed via the web hence making the teaching more relevant and interesting.

Statement of the problem

Development in information technology and the easy access to the internet has brought about easy access to information resource for university dons and students. Free access to e-books and other electronic reading materials from the internet is making many teaching staffs and the students at the university shy off from using printed otherwise known as c-books available in the university libraries shelves. Among the factors that contribute to this paradigm shift from e-books to c-books include easy availability of e-books, provision of ready availa-

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ble internet among other factors. This study was carried out to establish the level of e-books utilization verses c-books by students and faculties in two public universities in Kenya.

Objectives of the study

The general objective to the study was to evaluate e- books utilization in public universities in Kenya as compared to c-books found within the universities libraries. The specific objectives to the study included:

i) To establish the state of e- books utilization by students and faculties in public universities.
ii) To establish the state of c- books utilization by students and faculties in public universities libraries.
iii) To establish the courses of rising e- books utilization verses utilization by students and faculties in public universities.

2.0 LITERATURE REVIEW

The Wikipedia encyclopedia defines an electronic book as a book-length publication in digital form, consisting of text, images, or both, and produced on, published through, and readable on computers or other electronic devices. It is also equivalent to a conventional printed book. The Oxford Dictionary of English defines the e-book as an electronic version of a printed book. E-books exist without any printed equivalent, they are commercially produced and sold usually intended to be read on dedicated e-book readers (New Oxford Dictionary, 2013). However, almost any sophisticated electronic device that features a controllable viewing screen, including computers, many mobile phones, and nearly all smartphones, can also be used to read e-books. Some companies, such as Amazon, with their Kindle for PC software, provide an emulator that allows a user to read their format on other platforms. Wikipedia encyclopedia also indicates that, over 2 million free e-books were available between July 4 and August 4 in 2009. Mobile availability of e-books may be provided for users with a mobile data connection, so that these e-books need not be stored on the device. An e-book can be offered indefinitely, without ever going out of print. In the space that a comparably sized print book takes up, an e-reader can potentially contain thousands of e-books, limited only by its memory capacity. If space is at a premium, such as in a backpack or at home, it can be an advantage that an e-book collection takes up little room and weight.

Digital resources

Some of the advantages that the digital resources provide to the e-readers include the mechanical and multimedia benefits whereby the e-book websites include the ability to translate books into many different languages, making the works available to speakers of languages not covered by printed translations. According to an International Conference on Mathematics Education Research 2010, electronic publications always attract many readers due to its nature of mobility and dynamic features. Electronic book (e-book) as one of the electronic publications on the market has taken its place besides its print counterpart as an accepted method of bringing the published word to readers (Letchumanana and Tarmizi, 2010). Depending on the device, an e-book may be readable in low light or even total darkness. Many newer readers have the ability to display motion, enlarge or change fonts, use Text-to-speech software to read the text aloud for visually impaired, partially sighted, elderly or dyslectic people or just for convenience, search for key terms, find definitions, or allow highlighting bookmarking and annotation. Additionally, e-books allow for readers to look up words or find more information about the topic immediately. Material can be organized however the author prefers and is not limited to a linear path through the book as hyper-text can allow a number of paths through the material(Adele, March 1977.) A service provider is a company that provides organizations with among others education, communications, storage and processing of electronic information and services. Although the term service provider can refer to organizational sub-units, it is more generally used to refer to third party or outsourced suppliers, including mobile and telecommunication service providers (TSPs) and Internet service providers (ISPs). According to SOFTKENYA website Kenya has more than 90 Internet Service Providers who provide fast internet services to their customers, with this boom, many individuals as well as institutions use the internet facilities to access a wide range of reading materials at their own convenience (SOFTKENYA, 2013). Depending upon the software support and used formats, non-textual multimedia can also be embedded into e-book pages as widgets, including images (and image galleries), videos, audio files and interactive (still or animated) models; this is similar to html elements which allow for presentation of multimedia content through embedding of the content inside web pages. This results in e-books offering richer reading experiences than is possible through traditional, physical books (Wikipedia, 2013). Safaricom Business Managed Internet Connectivity takes all the stress out of setting up the right Internet connection for one's business, It provides a tailor-made solution by choosing the right connection for its customers to install, set up and manage the most secure network. As the leading supplier of business Internet access services, the company has a high speed capacity and reliable network to its customers. To meet this unique challenges for its large customer base, Safaricom Company ensures that its managed Internet service has the optimum speed, which may range from 1Mbps to 100Mbps (Safaricom, 2013). With this, the managed broadband service gives customers peace of mind in setting up and utilizing the internet anywhere in the country. Since they provides secure and reliable Internet connectivity of high speed connections available for up to thousands of users and wireless solutions many students and university academic staff use the service to access reading materials on any dedicated e- reader or mobile e-reader platforms at their own convenience and comfort.

3.0 METHODOLOGY

The study employed the use of both interview instruments and questionnaire. Structured questionnaires which were used to collect quantitative data on e-book utilization among the teaching and the students within the two (2) public universities. The structure of the questionnaires consisted of three (3) major parts, the first part required the respondents to fill their personal details such as the name, age, year of study and course they study. The second part of the questionnaire required the respondents to state their perception on e-books verses c-books by selecting options provided by the researcher, among the questions asked included their usage levels and preferences. The third part of the questionnaire consisted questions which require the respondents to express their reasons for using e-book and reasons for not using e-book. The respondents were also to state reason for using and not using c-

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books. The interview instruments were required to capture the qualitative data for the study, in involved the researcher to individually carry out the interviews guided by guidelines from the interview instruments. The study was carried out from January to June 2013. The questionnaires were distributed by the researcher who taught that particular class, and the interview to the respondents were carried out by the researcher. The completion of the questionnaire took about 30-45 minutes and all the teaching staff and the students complete their questionnaire during their lesson period. The data collected was summarized in frequency table and data analyzed was presented in graphs and pie charts among other tools.

4.0 FINDINGS AND DISCUSSIONS

Findings

4.1 Table *showing the use of e- books and c- books by students*

Year of study	Students number	e- book Utilization	% c- book utilization	% e- book Utilization	% difference
1st year	75	55	26.67	73.33	46.67
2nd year	75	63	16	84	68
3rd year	75	70	6.67	93.33	86.67
4th year	75	73	2.67	97.33	94.67

The trend of c-book utilization decreased as students progressed in their year in of study. 26.67% and 73.33% of first years made use of the c-books and e-books respectively. This gave a percentage difference of 46.67% between the two resources. At fourth year stage 2.67% and 97.33% utilized the c-books and e-books respectively. This gave a percentage difference of 94.67% between the two resources. The combo chart below summarizes the trends between c-book and e-book utilization by the students as reported by the study.

Total Post Graduate students 100			
	e- book Utilization	C- book Utilization	Using both e-books and c-books
students Number	58	23	19
% utilization	58%	23%	19%

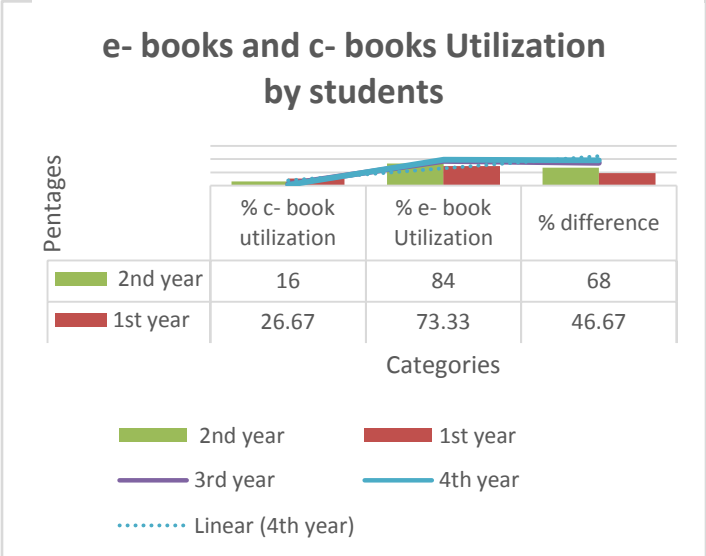

Fig 1: *showing a combo chart of c-book and e-book utilization by university students*

The table below shows Percentage utilization of E- books and C- books by Post graduate students from the ten Universities.

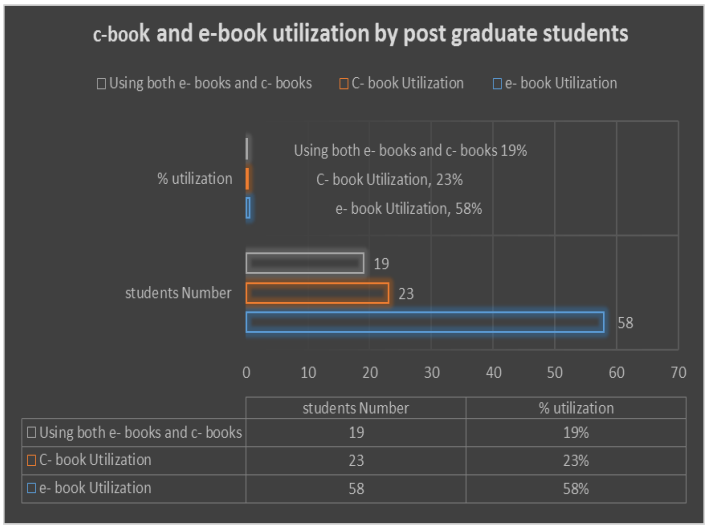

Fig 2: *showing c-book and e-book utilization by post graduate students*

58% of post graduate students made use of e-books as compared to 23% and 19% who utilized c-books and both c-books and e-books respectively. The table below show the percentage e- books and c- books utilization by the university teaching staff.

Total No. teaching staff 100			
	e- book Utilization	C- book Utilization	% Using for both
Staff numbers on utilization	37	49	14
% utilization	37%	49%	14%

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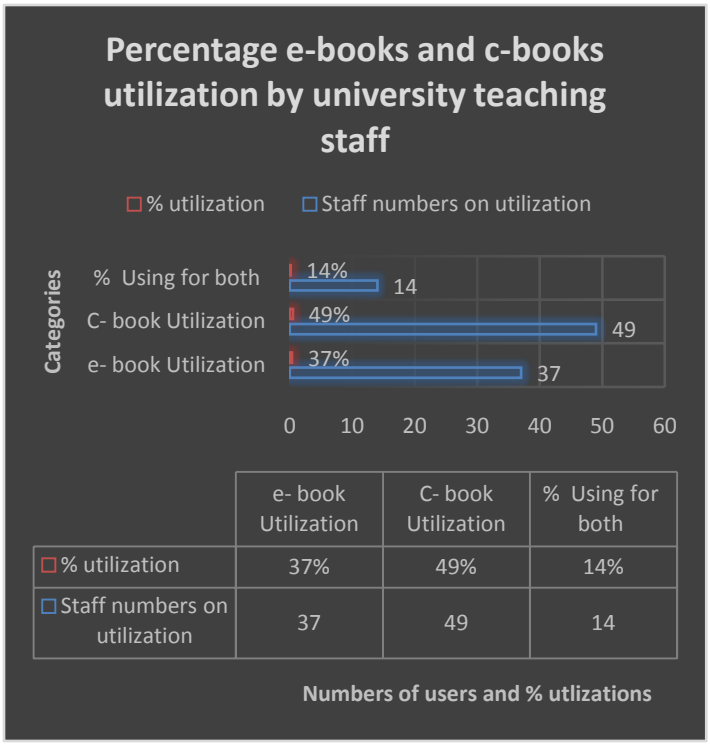


Fig 3 *showing Percentage e-books and c-books utilization by university teaching staff*

From the graph above, 37 teaching staff representing 37.0 % made frequent use of e-books, while 14 teaching staff representing 14.0 % of the teaching staff made use of both the resources. Table showing accessibility and efficiency of between both e-book and c-book utilizers

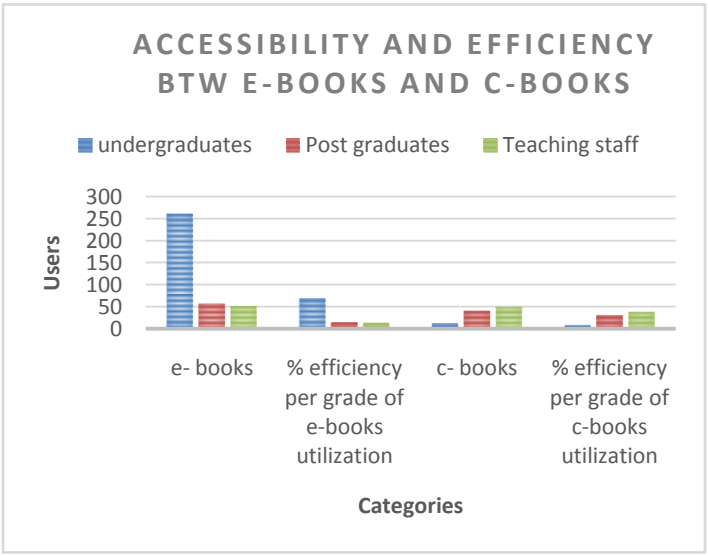
Utilizers	e-books	% efficiency per grade	c-books	% efficiency per grade
undergraduates	261	70.54	39	30.0%
Post graduates	58	15.68	42	32.31
Teaching staff	51	13.78	49	37.69
Totals	**370**	**100.00%**	**130**	

Fig 4 *showing accessibility and efficiency between e-book and c-book utilization*

4.2 Discussions

The state of e- books utilization by students and faculties.
Out of the 400 students and 100 faculties/ teaching staff in the two universities, 261 undergraduate students; 58 post graduate students and 37 faculty/teaching staff made use of e-books during their studies and research work totaling to 356 users of the 500 total sample of the study who used e-books. This gave the study 71.2% utilization measure on e-books. Among the factors that contributed to this high percentage included the easy access to e-resource within the campuses due to available internet especially the wireless network. The high percentage of e-book utilization by the university fraternity was also driven by the ease of use of the e-books during study. Most of the students indicated that it was easy to perform assignments using ebooksrather that the use of the conventional library books. This thus meant that very few c- books from the library were being borrowed or even utilized.

The state of c- books utilization by students and faculties in public universities libraries.
The research showed that the level of c-book use wihinthe university library was decreasing as the students progressed in their studies. 26.67% - first years, 16% - second years, 6.67% - third years and 2.67% - fourth years. The post graduate students, recorded a 23% use of c-books. The teaching staff on the other hand showed average use the c-books as well as e-books. 37% of the the staff undr study utilized the c-books. The research also showed that the level of e-book use wihin the university library was increasing as the students progressed in their studies. 73.33% - first years, 84.0% - second years, 93.33% - third years and 97.33% - fourth years. While the post graduated recorded a 58% made use of e-books. The teaching staff on the other hand showed average use the c-books as well as e-books. 49% of the the staff under study utilized the e-books.



Accessibility and efficiency between c- and e-books utilization
70.545 % of the undergraduates stated that using e-books was more efficient while 30.0 % of the undergraduates stated that c-books were more efficient for them. 37.69% of the teaching staff found working with c-books to be more efficient while 13.78% of the teaching staff stated that using e-books was more efficient for them. For the post graduates, 15.68% stated that working with e-books was more efficient to them while 32.21% stated the use of c-books was efficient for them.

Causes of rising e- books utilization students and faculties in the universities.
Among other reason on why the utilization of e- books was on the rise included the improved IT – infrastructure within the university, the availability of free and fast internet facilities, easy access to electronic books and reasoses free to down-

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load from sites such as 4shared.com and bookboom.com.The teaching staff reported that the use of e- books made it easier for t hem to teach as well as do research. The post graduates students too had a similaropinion they also stated that since they were carrying out research it was much easier for tyhem to carry e-books and share by use of memory tools such as the flash disks and virtual memory i.e. the cloud accounts. Generally the students and the teaching fraternity were able to access e-books on variety of platforms such as tablets, lap-tops, palm tops as well as smart mobile devices snd this made it easy fro the to do their study work as well a share the books.

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