

PROSPECTS FOR ADULT LEARNER DIGITAL LITERACY AND UTILISATION OF E-CONSUMER SERVICES IN NAIROBI COUNTY, KENYA.

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ABSTRACT

Digital literacy is seen as an avenue through which African countries can accelerate their growth and development. The purpose of this study was to investigate how the digital literacy of adult learners in Nairobi County, Kenya affects their use of e-consumer services. And the adequacy of digital literacy in adult learner programs that are run in the adult and community education centers. The study had two objectives: to find the relationship between the use of e-services and digital literacy of adult learners, and to find out adult learning centers effort in promoting digital literacy. The study design was descriptive survey. The research was conducted among adult learners and instructors in selected adult education centers, administrators in Huduma Centre in Nairobi, and Adult Education Officers of Nairobi County. This study used questionnaires and interview schedules to collect data from 375 adult learners and 108 instructors the relationship between adult learner digital literacy and their use of e-consumer services. The study found that the level of use of e-services by adult learners was tied to their digital literacy level.

It was found that digital literacy is not yet emphasized in adult learner centers. There is great need to integrate the use of technology teaching adult learners in adult learning centers to align adult education programmes with current developments in the present real world, and to mainstream digital literacy into adult learner centers.

Keywords: Digital literacy, e-consumer services, Huduma centre.

INTRODUCTION

In today's technologically advanced digital world where the consumer world is fast transforming to become an E-consumer platform where different sets of digital literacy skills are required to successfully navigate and access the marketplace. Advances in technology have upped the ante for adult literacy by redefining the skills required to function successfully at work and in everyday life (Norman & Skinner, 2016). A functional approach to promotion of literacy and educating leaves out critical conceptualization on operations of adult literacy in the job market. (McCartney, 2021). It fails to see how literacy is embedded in social contexts.

Information Communication Technology (ICT) is also offering new tools with huge potential for improving adult education and literacy if educators can source and utilise them effectively.

There are a variety of digital and video technologies, consumer electronics and telecommunication with features suited for adult education. Within each type of these technologies are hardware, software and learning materials available to enhance the adult learners' literacy on e-consumer services. Technologies that have the potential to enhance adult and adolescent literacy development are fast emerging and becoming cheaper for the users. Internet technologies also offer the ability to remove barriers associated with constrained instructional times and locations, allowing individuals to learn and practice when and where they would want to learn from. In addition, because literacy in the digital age necessitates the use of digital technologies, it is critical to incorporate technology into literacy training.

Although there is a rising demand to integrate ICT into educational settings, evidence reveals that the levels of illiteracy are still high, especially in lifelong learning, threatening the implementation of ICT in learning systems (UN, 2010). A report by UNESCO (2013), estimated that globally, approximately 774 million adults aged from fifteen years have difficulties in reading simple text, making numerical comprehension or writing, yet, ICT use is needed virtually in every electronic-consumer service. Therefore, it is essential for adult learners to learn about basic ICT technology so that they can willingly embrace ICT integration

into their learning programmes. This trend has seen ICT as the primary set of instructional tools and potential delivery system that can help people acquire the much-needed skills. Thus, they can be economically and socially remaining relevant in their day to day daily running of the country. Therefore, increasing their employability and literacy skills. Lu, Hou, and Huand (2010), and Motschilnig, (2014), believe that ICT can help communities who are already disadvantaged in a variety of ways to get out of poverty and break the gender difference divide.

Vitale (2021) asserts that engaging learners in digital platforms such as online learning programs can encourage students to interact with the internet and the services offered therein. However, successful engagement of adult learners over online platforms requires engagement provided by the instructors' to promote confidence and self-efficacy among the students. whereby delivery of adult classes has been shifting to online platforms to promote continuity of education and upgrading of individual digital literacy skills (OECD, 2020).

Norman and Skinner (2016) argue that electronic tools provide little value for its intended users especially where they lack skills needed to effectively interact with the online teaching and learning facilities offered to the adult learners. Consequently, this brings about challenges among the consumers on how to engage with e-platforms that requires the adults to use and interact with the set e-consumer systems on their own. Despite the potential of ICT to facilitate social and economic

development, it is creating a divide between the digitally literate and digitally illiterate members of the society. For instance, in Namibia, the majority of adults are severely technologically disadvantaged and the majority lack the necessary skills needed to navigate the increasingly digital world where provision of services is shifting online as basic government services are being provided digitally (Shihomeka, 2021).

The National ICT strategy for education and training (2006), Kenya Vision 2030 Development Programme (2007), Ministry of education strategic plan (2006-2011) among others. According to the GoK report (2006), the National ICT Policy's main goal is to promote long-term economic growth and development, as well as poverty eradication, using productive and effective technology. It also aims to encourage investment in the ICT sector while also fostering the spirit of innovation through research and development. the Kenyan government is committed to facilitating ICT adoption, education and use in most of the government sectors and institutions. These can further be seen from the ways in which the government has embraced ICT technology.

E- Consumer services have been introduced in most government services for example introduction of I-tax, which is a tax-filing system that is done online to substitute the previous paper-based systems (Janssen, 2012). Additional facilities currently offered on digital platforms include application for business permits, applications and renewals of driving licences,

business registrations, and application for passports, electronic money transfers popularly known as M-pesa, T-Kash, M-akiba amid others (Mbugua, 2009). Various government and parastatal agencies are currently insisting on digitising all their operations. For instance, The Kenya Revenue Authority (KRA) requires online filing of personal and business tax returns. Thus, business owners must purchase Electronic Tax Return (ETR) machines that require the business owners to file tax returns on a monthly basis. In handling and operation of the ETR machine, the owner of the business must be digital literate.

However, this evolution of digital generation and increased digitization has impacted negatively on the adult and community learners. This is because majority of the adults in the education centers are still focusing on reading, writing and arithmetic as basic literacy, whereas the global shift is already moving towards basic digital literacy. The adults especially in the learning centers are disadvantaged since they have to seek assistance to access E-consumer services that are expected from them and needed by either the government or for their own day to day running and management of their lives for example filing annual tax returns and renewing their driving licences online shopping and mobile banking are some of the services that require the adults to have basic ICT literacy so as to interact with the modern technology.

Overdependence on ICT literacy assistance is costly, time consuming and more importantly, is an

intrusion to the privacy of sensitive personal information and data.

Ultimately, in Kenya, as in most developing countries, adult and community education is still in its early stages, revolving around the basic stage where students are still at the basic literacy level. A crucial concern is whether adult and community education, in its current form in Kenya, empowers participants to actively interact and utilize e-services in their everyday transactions in a secure and productive manner

As a result, the goal of this study was to see how adult learners use their digital literacy in the utilization of e-services in Nairobi County, Kenya.

Kenyan are now increasingly faced with the necessity to use electronic services for their e-consumer needs, partly because mobile phones have become affordable and accessible. For example Kenya has a very strong mobile money transfer technology environment. For one to be able to use mobile phones for e-services, one requires some ICT technology knowledge. This study sought to evaluate adult learners' digital literacy and utilisation of e-services in Nairobi County, Kenya.

RESEARCH QUESTIONS

This study aimed at answering the following two research questions;

- i) To what extent does the adult learners' digital literacy affect their consumption of e-services.

- ii) How is digital literacy addressed in adult learner programs in Nairobi adult and community centers?

REVIEW OF RELATED LITERATURE

Adults in the 21st century need a high degree of literacy in both print and digital media to succeed in a competitive job market, maintaining a family, understanding health information, and participating in civic activities virtually. Yet, according to a survey by the United Nations, (2014) more than 90 million adults in the United States lack the reading skills necessary to live fully productive and secure lives. Although using technology may increase the initial cost of literacy programs, the degree of differentiated and continuous support they can provide to adult literacy learners is such that technology investments may be the most cost-effective approach.

Anastasiadou, Anestis, Karantza, and Vlachakis (2020) found that due to the inability to move physically supermarkets due to the restrictions brought by the coronavirus lockdown, adults were increasingly adopting e-buying. However, consumer behaviour on online buying and selling was mainly driven by the desire to access services online, but the activities were mainly constrained by the level of literacy and knowledge on digital or mobile device use. Individuals are increasingly being forced to adopt e-service or e-consumer services due to the restrictions that initially came with social distancing during the pandemic. The aspect of e-buying has continued to be embraced

by most private and government agencies even after the pandemic due to its flexibility and less cost use.

Cell phone payment is becoming more popular, especially in third world countries. M-Pesa is a standout example of a mobile money business that creates employment and combats poverty in Africa. It began in Kenya and lets users to make deposits, withdrawals, cash transfers, and bill payments, providing financial services in nations where banks and road infrastructure are still developing while still adhering to financial rules and regulations (United Nations Survey,2014). In a local study by Jierre, (2018) used the Huduma Centres in Kenya as case studies for examining the challenges facing the adoption of e-government services in Kenya.

The Huduma Kenya program is a one-shop for all government services from various departments. Kenyans can easily access the Huduma services in one stop. Jierre (2018) found that the major constraints facing the program was the limited skills by the public, especially illiterate older adults who could not utilise the online interface of the Huduma platforms to book appointments for various services offered. The other challenge was limited access by some Kenyans to access cyber cafes and digital devices, and ultimately the e-government services.

METHODOLOGY

The study was designed as a descriptive survey targeting Adult Education officers in Nairobi county, adult learners and tutors in adult learning institutions, and management officers in e-consumer service providers in Nairobi County. Nairobi County was chosen because it is the capital city in Kenya, and therefore the hub of e-consumer services.

The distribution of sampled respondents, using Slovin’s formula is summarised in Table 1.

Table 1: Sampling matrix for adult learners, tutors and centers

No.	Sub County	Total No. of centers	Sample for centers using formulae $50/100*N$	Total No. of tutors	Sample for tutors using formulae $50/100*N$	Adult learners total	Adult learners (sample using Slovin's formula)
1	Makadara	8	4	15	8	348	10
2	Dagoretti	18	9	19	10	2194	63
3	Westlands	18	9	18	9	433	12
4	Kasarani	35	17.5	32	16	3011	86
5	Mathare	19	9.5	10	5	368	11
6	Njiru	20	10	18	9	967	28
7	Kamukunji	28	14	27	14	2253	65

8	Langata	17	8.5	15	8	741	21
9	Kibra	15	7.5	26	13	675	19
10	Embakasi	23	11.5	24	12	611	18
11	Starehe	19	9.5	29	15	1960	56
	TOTAL	220	110	223	112	13561	389

Source: Researcher

Purposive sampling was used to get the respondents from Huduma centers, and Cybercafés offering e-consumer services. The most senior manager from each of the offices was picked, for being the most conversant with the running of the office.

Questionnaires were used with adult education tutors adult learners to collect data. Interview schedules were used to collect data from managers at Huduma centers and cybercafes. The collected data was coded and entered into the digital and the Statistical Package for Social Science Software (SPSS version 19) for analysis. Qualitative data from open ended questionnaire responses were analyzed thematically.

RESULTS AND DISCUSSION

The majority (63.9%) of instructors who participated in the study were male, and 80.6 per cent of the instructors had served in their capacity up to 10 years. The majority (80.8%) of adult learner respondents were between 18 and 40 years old, with the modal age group being 20-39 years (54%). Most adult learners (64 percent) were females.

Table 2 displays the responses of adult learners on their use of digital services. The majority of adult learners (80.3 percent) indicated that they could not file revenue returns by themselves while only 19.7 percent indicated that they could file their revenue returns. As such, they must depend on others to file their tax returns, thus limiting their independence and privacy. These findings imply that most adult learners cannot access digital services on their own due to lack of knowledge on how the digital platforms operate.

Table 2: Use of E-Services by Adult Learners

Digitization of adult learners	N=375	F	% NO
Application for procurement	No	290	77.3
renewal of driving licence	No	211	56.3
Application of driving licence	No	268	71.5
Revenue returns	No	301	80.3

Although there is a growing need to increase the integration of ICT use in education, other evidence reveals that the levels of illiteracy are still high therefore threatening the implementation of ICT in learning systems (UN, 2010). Similarly, McCain (2019) established that there are many ICT programs that can equip adult learners with digital and digital skills to help them navigate the changing workplace norms and the e-governance and social digital changes. This calls for programs that can promote self-confidence, independence and self-directedness.

Figure 1 summarises adult learners level of digital literacy by percentage of learners.

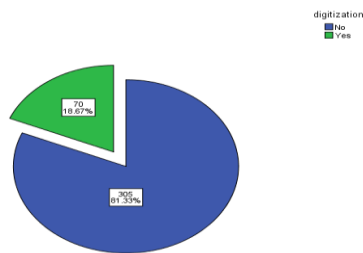


Figure 1: Digitization of adult learning

From Figure 1, most adult learners (81.3 percent) were not digitally literate while 18.7 percent fell into the category of those who could be termed as digitally literate through the adult and community learning process. These statistics suggest that most adult learners are not digitally literate, even as they undergo adult education that is meant to equip them with skills needed in today’s digital world. One such use of digital literacy is the consumption of e-services.

An interview with the adult education officer also revealed that most of the adult learners had some knowledge of e-consumer services provided online in the city, and argued that,

Most adults are aware that you have to go to the cyber to get some basic services such as the driving licence or KRA pin. However, most of them really steer away from some of these services mainly because they do not understand how e-consumer services work.’

That knowledge of how e-services work, and how to use them relates to digital literacy. This interviews with Huduma Centre officials and cyber-café managers also corroborated the finding on low digital literacy by adult learners, stating that adult learners visited them frequently for KRA tax filing, application for driving licence, application for migration documents and acquiring new or replacement national identity cards. One of the officers argued;

‘The majority of the older adults visit cyber cafes to seek help in accessing the services offered in Huduma one stop shop. They mainly ask to be assisted with applying for KRA tax pins, filing their annual tax returns, applying for procurement, booking appointments to acquire new or replace and collect their lost national identity cards and also go make inquiries on different government services offered in the Huduma centers.’

One of the Huduma centre officials argued;

‘‘We have many older adults who come to the centre without first booking an appointment and most of them are unaware of the services we offer with some coming with their children to apply for their first national Identification Card. The majority lack awareness of the types of services offered in the centers. More worrying is their lack of skills to book an appointment online.’

Therefore, it can be deduced that even though the majority of the adults claim that they use e-services such as the e-government services, the majority of the older adults do not have the skills needed to access these services themselves, relying on third parties to help them access and use the e-platforms.

The study found that most adult learners (64%) reported to being able to access e-consumer services without assistance. Similarly, interviews with cyber-café and Huduma Managers support these findings, as the respondents reported that there are some adults who can access e-consumer services without any assistance. One of the interviewees indicated that:

'Some of the adults who visit cybercafes are quite capable of accessing the services without requiring any assistance. However, I have observed that this happens after they have been shown how to do it before. They learn very fast how to do it once they are shown how to access them.'

However, according to one Huduma services customer care officials;

'The majority of older adults in Kenya really face numerous challenges in accessing the digital services without assistance from another party. Most Kenyan adults who come here are not digitally literate, and this limits their ability to navigate online platforms and to even know where to get the Huduma services websites let alone know how to book the appointments. We have many adults who come here without a prior appointment and who are shocked once they are asked to show their online appointments. They are not even aware that such a system exists.'

On a question on the extent to which they agreed with Likert type statements, Table 3 shows how adult learners and instructors use different e-consumer services. The questions were presented on a Likert type scale where 1=Not at all, 2= Very Little, 3=Little, 4 Some Extent, 5=Great Extent, 6=Very Great Extent.

Table 3: Use of E- services by Adult Learners and Instructors

E-service		Adult learners N=375					Adult Instructors N=108					
		1	3	4	5	6	1	2	3	4	5	6
National ID	F	81	75	81	75	63	20	94	30	6	9	
	%	21	20	22	22	16	22	22	8	27.8	5	8.3
Driving License	F	81	69	10	72	48	24	36	9	27	6	6
	%	21	18	2	19	12	23	3	8	25	5	5.6
Kenya Revenue Form	F	84	93	78	69	51	30	12	1	30	6	9
	%	22	24	20	18	13	21	11	1	27.8	5	8.3
M-Pesa	F	72	87	81	48	87	18	18	1	33	1	15
	%	19	23	21	12	23	16	16	1	30.6	1	13.9
Mobile Banking	F	63	69	90	78	75	12	6	3	6	1	66
	%	16	18	24	20	20	1	5	2	5.6	1	61.1
Land ownership search	F	81	57	81	11	44	36	33	9	12	1	6
	%	21	15	21	3	11	33	33	8	11.1	1	5.6

Commented [NB1]:

The adult education officers argued that first, there is a need to challenge the existing stereotypes that older adults cannot learn or have a negative attitude towards the use of digital media and other new technologies. One of the education officers argued that;

‘First, I believe that there are some key beliefs and stereotypes that should be dispensed with before the adult learners can fully enjoy integrated teaching and learning ICT in the learning centers. For one, I know that adult learners, just like the younger learners, can easily acquire digital literacy skills and knowledge. However, I believe that a key challenge is the lack of the right attitude and the wrong approach to teaching and learning digital literacy in our classes. So, I believe that the attitudes of the educators should first change before the learners’ attitudes can change. You cannot have educators who perceive the older adult learners’ abilities as being limited regarding the acquisition of literacy skills teaching and expecting the learners to become competent. They first must believe in the older adult learners’ ability to acquire digital skills.

According to Table 3. 83.3% (90) reported that there are challenges in implementing digital literacy in adult education in their classes. According to Lewis (2017) as ICT permeates different facets of life, institutions have updated their classrooms by accessing the web for presentations and using synchronous videos to improve the learning experiences. Exposing the students to different aspects of ICT was found to be critical in creating blended e-learning experiences where the learners left school with more exposure and understanding of new approaches in e-consumerism and e-governance.

For adult learners, the increased demand for learning is peculiar due to the demands that come with their need to work, the intensive responsibilities in the community and for their family. However, the current world is demanding adults who can adapt to the changes in the market including the changing modes of service provisions to the internet platform. So, Miseviciene, Ambraziene and Makackas (2018) established that in most schools, there was a disparity between their claims of offering e-learning services and the adequate presence of resources needed to implement e-learning.

A few digitals and projectors were present, but internet connectivity was limited which constrained the effectiveness of the teaching of e-learning practically in a way that could equip the students with skills that can be adopted in day-to-day life.

The respondents mainly 69.4 percent indicated that they have the physical facilities while 30.6 percent claimed that they do not have physical facilities that can support ICT. Based on these claims, it can be deduced that most of the centers do not have sufficient physical facilities to support the instructor’s incorporation of ICT into teaching and learning even though some of the schools do have the facilities to promote the use of ICT. Similarly, internet facilities availability for the students were reported to be present by half of the respondents 50 percent while the remaining half claimed that they did not have internet facilities available for the students.

This implies that aside from the lack of physical facilities to support ICT, internet access and availability within the learning centers is a challenge further impeding the learners' proficiency in the use of digitals and other ICT facilities. These findings were reflected in the adult learners' responses where they were asked to indicate the challenges they face when using digitals and they indicated that they are mostly not conversant with how some of the more sophisticated aspects of the digitals operate such as how to effectively conduct internet search. This may be associated with the lack of sufficient exposure to the ICT facilities, the internet and limited practicality to help them familiarise with ICT facilities to promote use of e-consumer services.

The adult learners were also asked to indicate ways in which e-learning has been implemented and Figure 2 shows the Integration of e-learning in adult education

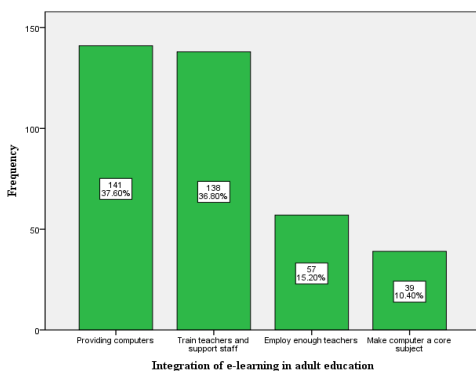


Figure 2: Integration of e-learning in adult education

The interview with the adult education officer also revealed that there are several measures that have been put in place to promote the integration of ICT in adult learning institutions. He stated :

‘Well, of late, the government and well-wishers have worked in tandem to enhance ICT in the centers. They are donating digitals, smart phones and laptops to the institutions, even though they are not near enough to meet the needs of all our learners, it is still a positive move and we really ask the government and well-wishers to continue supporting us. There have also been seminars and workshops for our instructors to help them master the new digital services and hopefully pass on this knowledge to the learners.’

These findings imply that digital literacy skills are considered as vital elements in today' adult education programs and measures are being put in place to implement ICT in adult learning centers. Guan, Ding and Ho (2015) revealed that technical training and preparations are required on how to effectively utilise the e-learning platforms and infrastructure. There was also a need to improve the local infrastructure including installing of internet services and further equipping the digitals and mobile devices with relevant apps and simulations that could enhance their skill and knowledge acquisition relevant to the changing demands brought by e-consumerism.

Challenges identified by the adult learners on their institutional digital experience is stalling of gadgets (39.2%), lack of adequate infrastructure (43.2%), and not being taught (17.6 %).

These findings support the claims by Stewart (2013) who argued that lack of infrastructure in African countries is a key challenge in integrating ICT into adult education. Ramos (2015) found that most of the adult learners perceived integration of ICT with digitals, mobile phones, the internet and other relevant applications to have a positive impact on their learning of digital competencies. Rose, Wang, Sainz, Joshi (2019) also established Most of the digital equipment in the labs were outdated and others were not functional due to limited funding and staffing.

CONCLUSION AND RECOMMENDATIONS.

To sum up this section, the analysis revealed that there is great need to educate the adult learners and equip them with the knowledge and skills needed for them to interact effectively and efficiently with the e-consumer services that they interact with in their day to day lives. The adult education centers should be the places where adults learn effectively the skills they need to navigate the present technology environment. Adults need guided opportunity by other adults to learn how to use relevant digital literacy skills. This will enable them to use the knowledge gained in another place without requiring any assistance.

Although instructors reported being enabled with digital gadgets, the study found no structured ICT integration of ICT in the classrooms, especially technologies for learners to manipulate themselves.

Overall, the process of integrating ICT in adult and community learning in Kenya is faced with challenges such as lack of resources, poor infrastructure and limited time allocated to ICT teaching and learning. Teaching and learning in adult education centers should be tailored towards current digital needs required to navigate the e-consumer market to enable adult learners to successfully access and use e-services. The challenges the adult education learners face as they try to acquire digital literacy need to be relooked, especially through addressing the concerns of adult teachers as they teach the adult learners, and the financing adult education.

In view of the importance of full participating in consumer services, Policies should be put in place by the government to ensure that each school is equipped with adequate ICT infrastructure and physical facilities to promote efficient teaching and learning of digital literacy.

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