

DIGITAL LITERACY AND INCLUSION IN THE NORTHERN REGION OF GHANA: A COMPARATIVE ANALYSIS OF THE IMPACT OF TAMALE ICT CENTRE AND TOLON MTN CENTRE

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ABSTRACT: Arguably, there is a complete absence of research on the performance of the ICT centres in Tamale and Tolon, as well as its contribution to the development of their respective communities. In addition, there is a total lack of internet presence of the said facilities, thus little and in most cases nothing is known about their availability. Therefore, this research sought to ascertain and evaluate the relationship between ICT and development in the northern region by highlighting the efforts of the two ICT centres in bridging the digital literacy and inclusion gap between Southern Ghana and Northern Ghana. The researcher agrees that corporate social responsibility is voluntary and beneficial but in order for communities like Tolon and Tamale to benefit fully from corporate social responsibility, the government of Ghana through the various regional, metropolitan, municipal and district coordinating councils should fully absorb such projects because projects by corporations are handed over to communities without formally structuring the operations of facilities.

KEY WORDS: *Digital Inclusion, digital literacy, Northern Ghana, development*

1. BACKGROUND

Third world countries, otherwise referred to as the global south, have recently began to appreciate Information and Communication Technology (ICT) as a vital tool to attain positive and sustainable development by way of creating ICT enabled environments, equipped with internet connectivity technologies (Ndwiki & Thinguri, 2017). The Republic of Ghana is not left out in this regard as it has over the years contributed immensely to the development of ICT infrastructure across its 16 regions. The strides of Ghana in ICT dates to 1989 when the first international computer network (based on store and forward email) was launched. This was established between Greenet in London and the Ghana National Scientific and Technological Information Network (GHASTINET), the Association of African Universities (AAU), and the Technology Transfer Centre (Akakpo, 2008). Tevie et al. (n.d) indicate that Ghana attained full internet connectivity in 1995, thanks to agencies such as the Network Computer Systems, Ghana Telecom and the Ministry for Transport and Communications.

There has always been an undeniable inextricable connection between ICT and socio-economic development, particularly evident in the global north. For this reason, Nemer (2015) advocates that providing ICT access to rural communities in developing countries would attain substantial economic benefits. Ghana's northern region is one of the most marginalised regions in the country, hence there are existential inequalities in terms of access to technology, when compared to other regions like the Greater Accra of Ghana which is hope to the nation's capital city, Accra. To bridge the existing inequalities, efforts at digital inclusion in Southern Ghana ought not to be the same in the Northern Ghana due to the inequalities or difference in digital literacy. According to Nemer (2015), digital inclusion should examine the extent to which initiatives enhance interactions and possibilities of the marginalised group to actively participate in current socio-technical dynamics.

In December 2008, the Northern region of Ghana, the focus of this current study, welcomed its first public Information and Communication Technology GCNet Centre in the regional capital, Tamale, to serve as the facility to bridge the ICT development gap that exists between the southern and northern parts of Ghana. The facility was equipped with servers, computers, scanners, fax machines, and a standby generator (Daily Statesman, 2008). Further, in July 2016, Mobile Telecommunications Network (MTN), in partnership with the United Nations Development Program (UNDP), constructed an ICT centre at Tolon, a community also in the Northern region, to serve as a computer and digital literacy centre (Modern Ghana News, 2016). In consonance with Neimer's notion to the effect that digital literacy education and inclusion should ensure positive societal change, this study seeks to examine whether the above-mentioned ICT projects have enhanced socio-economic development in terms of providing digital literacy education and inclusion.

2. STATEMENT OF THE PROBLEM

Nemer (2015) opines that digital inclusion should not be limited to the provision of internet and hardware such as computers and laptops, but rather digital inclusion should be comprehensive enough to include technological/digital literacy. The people in marginalised communities will not fully realise the impact of ICT when digital literacy education is absent. Similarly, Hache and Cullen (2009) underscore the need for digital literacy education especially in marginalised communities by arguing that individuals and disadvantaged groups have access to the skills to use ICT, with the hope that the marginalised can be able to own and operate technology.

Arguably, there is a complete absence of research on the performance of the said ICT projects in Northern Ghana, as well as its contribution to the development of their respective communities. Therefore, this research intends to ascertain and evaluate the relationship between ICT and development in the northern region by highlighting the efforts of the two ICT centres in bridging the digital literacy and inclusion gap between Southern Ghana and Northern Ghana.

3. GENERAL OBJECTIVE

To examine the level of societal change that has been realised by the communities as a result of the operations of the ICT centres with a focus on digital literacy and inclusion.

4. SPECIFIC OBJECTIVE

1. To determine if the ICT centres are well equipped.
2. To understand how the ICT centres contribute to the well-being of its users.
3. To identify the challenges with the ICT centres.

5. RESEARCH QUESTIONS

1. Are the ICT centres well equipped enough to meet modern day standards of ICT centres?
2. How do the ICT centres contribute to the well-being of its users?
3. What are the challenges associated with the ICT centres?

6. JUSTIFICATION FOR THE STUDY

Castells (1996) describes internet and digital access as a requirement for overcoming differences in society. As indicated early on, the northern region of Ghana is one of the most developmentally marginalised regions in the country. It is of immense benefit to evaluate the role of ICT centres in the lives of the people of the region so as to better shape the region to equally benefit from the information and technology industry. This study aims at understanding why the region still lags behind in issues of ICT led development despite the presence of the aforementioned ICT centres. The world is gradually becoming digitised, and thus the people of the northern region should not be left out.

7. SIGNIFICANCE OF THE STUDY

According to Datareportal (2020), internet penetration stood in Ghana at 48% in January 2020 with a total number of 14.76 million internet users in Ghana. This represents 0.2% world internet users. In advanced countries, internet access and digital literacy are a basic human right whereas the case is completely different in developing countries. This research intends to cover up for the arguably lost opportunities the northern region has faced and continues to face. Any ICT intervention must be premised on empirical evidences to predict the nature of the intervention. In this case, there is little empirical evidence in the northern region.

8. METHODOLOGICAL FRAMEWORK

This research used the qualitative methods in data collection and analysis by conducting in-depth interviews and thematic analysis, respectively. These were later transcribed with the help of two research assistants. In-depth interviews were conducted at the management level of the ICT centres to get the institutional

perspective of the operations and history of the centres. In all, two (2) interviews were conducted across the two communities and also transcribed and be subjected to comparative analysis.

9. ETHICAL ISSUES

The ethical considerations that applied to this research is reminiscent of Abdulai (2018) in which he explained the rationale of the study to all participants before the interview. There was no disclosure of the identity of participants in the interview.

10. FINDINGS AND DISCUSSIONS

This section of the research includes findings from the interviews. It also includes a comparative analysis and discussion of the findings. The findings are classified into various themes as follows: background of the ICT facility, ownership and management, digital literacy and inclusion, internet connectivity as well as professional competence.

10.1. Background of ICT facilities

Tamale ICT centre was established in 2008 by the Ghana Community Network Services (GCNet) in the form of a corporate social responsibility. The main brain behind this decision to establish an ICT centre in Tamale was the then Vice President, Aliu Mahama, who originated from the region. The main aim of the facility was to attempt to minimise the gap in digital literacy and inclusion between Northern Ghana and Southern Ghana.

An interviewee at management level explained “Because of lack of knowledge in ICT in the Northern region and Tamale precisely, the late Vice President, Alhaji Aliu Mahama contacted GCNet to build an ICT facility for the Tamale community as part of their corporate social responsibility” (ICT1, Personal communication, June 19, 2021).

Acknowledging the huge gap in digital literacy and inclusion of Northern Ghana and Southern Ghana and that there has been measures to mitigate the widening difference is a non-debatable fact because it is not an assertion by strangers, but rather from the indigenes of Tamale like the late Vice President Aliu Mahama. This same rationale applies appropriately to Tolon MTN ICT Centre. ICT2, stated:

Tolon MTN ICT Centre came into being somewhere around 2015 but was officially launched and handed over to the community in 2016 and it was brought by UNDP in collaboration with MTN Ghana. The centre was to bring ICT training to the doorsteps of the people since most of us never knew what it was to use a computer, we were only hearing of computers. It was a corporate social responsibility. (Personal communication, June, 19, 2021)

The above revelations are in line with the assertion in Ndwiki and Thinguri (2017) that third world countries have significantly realised the need for ICT in development and are making efforts in constructing ICT enabled environments equipped with internet connectivity technologies. Both are projects from the good will of private corporations as well as international bodies hence may qualify as projects of Corporate Social Responsibility. Also they are both premised on one goal which is to enhance digital literacy education and inclusion amongst people of the north.

10.2. Ownership and Management

Although Tamale ICT centre was established by GCNet, it no longer exists under the authority of GCNet. GCNet fully managed the facility till June 2020 where the government of Ghana terminated a trade facilitation contract with GCNet. As a result of this, GCNet wrote to officially withdraw all aspects of support from Tamale ICT Centre. Although the facility is now under the state owned Ghana Investment Fund for Electronic Communications (GIFEC), they do not derive maximum support as compared to that enjoyed under GCNet. For instance, no staff of the centre is being paid. The manager was only paid under his former authority that is the GCNet but has not been paid under their new management, the Ghana Investment Fund for Electronic Communications (GIFEC). Interestingly, there is no official contract between the staff and GIFEC, talk less of being under a payroll structure. The staff stated that their continuous stay at the centre is as a result of their passion for ICT and development of their community. This has resulted in the insufficient number of staff. The facility can boast of just three employees:

When the facility was established, we were solely under GCNet working with them and they supervised and financed our utility bills and everything. Unfortunately, they had a contract with the government which was terminated in June last year so they could no longer support the facility, I go out to work and add to our internal generated fund and then I pay my staff but I was paid by GCNet but as they went off, my pay also went off. (ICT1, Personal communication, June 19, 2021)

Unlike Tamale ICT centre, the Tolon MTN Centre totally lacks official management and supervision. Although it has an oversight committee board comprises representatives from the Chief of Tolon, the Tolon District Assembly and the Ghana Education Service, there is the total lack of coordination as the manager of the facility single-handedly takes decisions. Almost everything is left in the hands of the manager and his single staff who is the caretaker of the centre. What was common across both interviews was that they both lacked remuneration:

I am doing it out of passion because there is nothing there. It's only my guy there I do give. I ask him how much has he realised at the end of the month then I give him something. We can get 300 cedis a month, it's not enough. Sometimes my own money goes into the facility. (ICT2, Personal communication, June, 19, 2021)

10.3. Digital Literacy and Digital Inclusion

Since their inception, both facilities have run a number of educational programmes in Information and Communication Technology, aimed at developing ICT skills of their community members. Their target groups include the youth, particularly women and children within Tamale, Tolon and neighbouring communities as well as staff of organisations within the region. Tamale ICT centre is by far, a top-notch and sophisticated ICT centre, compared to Tolon MTN ICT Centre. For this reason, they have international and national sponsors and partners like the National Youth Authority (NYA), Cisco Networking Academy in Europe, Ghana-India Kofi Annan Centre of Excellence in ICT, just to mention a few. Tamale

ICT centre again has a reputable and widely recognised certification for students who pass through their training.

As part of its oversight committee board includes a representative from the Ghana Education Service, Northern Regional Coordinating Council, Tamale Metropolitan Assembly, and the Ghana Investment Fund for Communications. It is also a Diploma awarding institution that boasts of a significant number of graduates furthering their studies in institutions like the University of Ghana, University for Development Studies and the Kwame Nkrumah University of Science and Technology. They have also conducted a number of seminars and workshops on ICT for staff of institutions like the Bimbilla College of Education and National Youth Authority at a fee. They have engaged in several capacity building trainings in communities within the region. It also serves as a facility for basic and senior high school students who lack ICT laboratories to visit during ICT lessons. Courses organised at Tamale ICT centre goes for free to the public but comes at a fee when their training services are demanded for by organisations. The fees charged are used to maintain the facility as well as give some form of financial support to the staff since they are not under any pay structure:

October last year we started with Cisco programs. We partnered with Cisco Networking Academy to train the youth on how to do networking as well as system administration. We taught courses like Ghana connect, IT essentials, CCNA and we have C++ that is coding and entrepreneurship. (ICT2, Personal communication, June, 19, 2021)

The attempts to attain digital literacy and inclusion in Tolon are relatively low, compared to that of Tamale. The facility does not engage in outreach programmes like Tamale ICT centre does. At best, it doubles as the ICT laboratory for basic schools during ICT lessons. They offer courses such as introduction to computer hardware, software and networking but these certificates are the certificates of participation and basic certificates. This means that they are just to prove your basic knowledge in ICT and not to secure you a job or further studies like that of Tamale ICT centre. Efforts to get accreditation and partnership from IT institutions in Ghana like the NIIT have proved futile due to high conditions that cannot be met by the facility.

The level of motivation or attraction for ICT training and skills is also unconvincing as community members either cannot afford to pay or they are not simply interested because they do not know the benefits of having knowledge on ICT. This has reduced the facility to a centre for services like printing, scanning, photocopy, assessing of academic results, and online registrations among others. Moreover, there is no relationship between the centre and MTN Ghana and UNDP since it was handed over to them. The manager has written to solicit for funds from the District Assembly and other agencies like GIFEC but to no avail:

We wanted to involve NIIT but their conditions were too much and the fees will be high for my people. Even this one we have done 600 cedis, yet they are complaining. We have trained not less than 120 persons so far, just basic certificates. (ICT1, Personal communication, June, 19, 2021)

Because we have not been accredited so we can't give certificate, but I can say it's a recognized place so at best we can issue a basic certificate but cannot award diploma. (ICT2, Personal communication, June, 19, 2021)

Furthermore, the ICT training organised at Tolon is solely by the manager with no financial motivation. They have never received partnership or sponsorship to conduct ICT training. That said, while teaching and learning at Tamale is smooth with less difficulties, the situation in Tolon is different. Ironically, community participation which is widely recognised as a tool for social change is seen as a challenge in Tolon. It's been alleged that another reason for the low subscription to the courses has to do with the fact that the manager is a native of Tolon, hence he has no command over learners just like a facilitator should have over students. This is because of the familiarity between the manager and students which translates into non-seriousness on the part of the community members. Many don't see him worthy of being their facilitator basically because he has lived with them, so the how and where did he gain ICT knowledge talk less of impacting it on them:

The pride because I grew up here and I have a lot of mates so it's only the young ones that come but my age mates will say no. Even those who come are from different towns. It's subjected to public ridicule, people can insult you. (ICT2, Personal communication, June, 19, 2021).

In order to solve this barrier to ICT training, the manager has decided to import IT tutors from Tamale but it is also proving difficult since there are no funds. He believes that if the trainers are strangers, his people might subscribe and benefit from the programme.

10.4. Internet Connectivity

Both facilities were established with full internet connections but at the time of this study, none of the facilities had active internet connection. This study realised that they use a Wi-Fi device when they need internet connection. At both centres, the reason for the lack of constant internet services was due to financial constraints. Initially both rendered internet services similar to that of internet cafes. From the researcher's personal experience, as a basic school student growing up in Tamale around 2009 to 2011, they always visited the Tamale ICT centre for their internet services because their charge rates were lower and services were faster and reliable compared to the privately owned internet cafes. However, as at the time of this research, the centre at Tamale lost their internet services due to a fire outbreak and has since not been able to reconfigure their systems because they are no longer under GCNet, and cannot afford to restore internet services on their own.

According to ICT1, Personal communication, "You can see when you came in the guy was holding the Wi-Fi device, yeah that's what we use when we need internet for training" (June 19, 2021).

MTN Ghana provided that of Tolon ICT centre with internet for six months. The centre purchased the data from MTN for once and could not further purchase due to the low appreciation of internet in the community and also financial constraints:

That was the contribution of MTN, they provided the internet because UNDP did everything so they gave us internet connection for free starting from the day it was established it was cut off after 6 months. Our first subscription was not successful because the fee was too much. Here is a local place not everybody can use it. (ICT2, Personal communication, June, 19, 2021)

10.5. Professional Competencies

The professional qualifications of the management of the ICT centres was quite encouraging. Both managers are University graduates and still pursuing higher education. At Tamale, the manager boasts of 15 years of knowledge and practice in Information and Communication Technology, a graduate in Computer Science from Ghana Technology University of Communications, formerly Ghana Telecom. Conversely, the manager at Tolon, although a graduate in Accounting and Finance, exhibited considerable technical knowledge in ICT. He attributed his knowledge and experience in ICT to the fact that he learnt as an apprentice to friends involved in the repairs and servicing of computers and also short courses at NIIT:

I used to repair the Chief of Tolon's gadgets so that was why they brought me here. I followed friends and a lot of people so I know ICT. I never really studied, I did accounting first degree and now doing second degree accounting. Just learning from friends. I never went to ICT School. (ICT2, Personal communication, June, 19, 2021)

11. LIMITATIONS

This research did not look at digital literacy and inclusion from the perspectives of the community members. It was limited to the perspective from the management and staff of the two ICT centres and thus cannot be a generalised impact of the centres in attaining digital inclusion and literacy in Northern Ghana. This was as a result of limited time and funds. It is my hope that further research on digital literacy and inclusion will be extended to include the perspectives of the beneficiaries of digital literacy and inclusion in order to balance the perspectives.

12. CONCLUSION

Findings from this research buttresses already existing literature on corporate social responsibility projects, particularly Mohammed et al (2019) who indicated that only few corporate social responsibility projects are sustainable or resulted in developing deprived communities in the long run. It can be concluded that both facilities could do more than what is being done now in their communities to attain digital literacy and inclusion. The researcher agrees that corporate social responsibility is voluntary and beneficial but in order for communities like Tolon and Tamale to benefit fully from corporate social responsibility, the government of Ghana through the various regional, metropolitan, municipal and district coordinating councils should fully absorb such projects because projects by corporations are handed over to communities without formally structuring the operations of facilities. This is the reason why there is no form of remuneration and coordination at Tolon and Tamale ICT centre.

Working without financial motivation but passion is commendable but worrying as it does not contribute to the public image of the facility and can completely damage human capital in organisations. Organisations sometimes become the most 'sought afters' in their respective products and services because of high motivation at workplaces. A situation where word about an organisation's remuneration gets to the public, it has the potential to make that organisation an object of public ridicule and in the long run, make it look unattractive to potential employees.

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