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Public opinions on the implementation of free public Wi-Fi in Malawi

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Abstract

Free public Wi-Fi is perceived to be one of the solutions of addressing barriers of Internet adoption in Malawi. The Government of Malawi received funding from the World Bank to implement 32 hotspots of free public Wi-Fi across the country. This paper analysed the stakeholder's opinions regarding the implementation of free public Wi-Fi program. The study used a qualitative research approach. Data was collected from government department websites, social media platforms and online news websites. The data was analysed using content analysis. The findings showed positive and negative views from stakeholders on the free public Wi-Fi program. The positive opinions were related to promoting digital inclusion, safety health practices, supporting collaboration and improving education activities. The negative opinions were related to politics, biases in selection of locations, poor quality of services, priority of the program and sustainability of the program. The study offers useful insights on investment, appropriation and operations as factors that can affect free public Wi-Fi implementation in the context of developing countries.

Key words: Free public Wi-Fi, online media, public opinions, Internet, Malawi

1. Introduction

High cost of internet services is one of the inhibiting factors that affects internet adoption in Malawi (Kapondera & Mtambo, 2024; Makoza, 2023). Internet teledensity of Malawi is 24.4% (ITU, 2024). Internet access is available in urban areas with access to electricity supply to support the use of devices and network towers. Further, households in urban centres have disposable income to buy data bundles and access internet (Chinyama, 2022; Yeandle, 2022). While internet cafés and telecentres are present in other parts of the country, a large part of the population (e.g. people residing in rural and remote areas) has no internet access and not able to access services offered online to improve their lives (Bichler, 2008; Kainja, 2023). The government of Malawi considers the internet access as an enabler of digital inclusion that will support the socio-economic development of the country (as evident in national development plans and policies, e.g. Malawi Vision 2063, national ICT policy and Digitalization policy and national Digital Economy strategy) (Makoza, 2019; Makoza, 2022). The Government of Malawi received funding from the World Bank to implement 32 hotspots of free public Wi-Fi across the country as part of the Digital Malawi Project (PPCMW, 2022). The free public Wi-Fi program has attracted mixed opinions among stakeholders and beneficiaries expressed in the online media sphere.

Understanding the conditions and capacity of individuals or communities in using technology to support their participation in socio-economic activities in the context of Africa has received attention among information systems scholars (Dzator, Acheampong, Appiah-Otoo, & Dzator, 2023; Ragnedda & Gladkova, 2020; Vassilakopoulou, & Hustad, 2023). Previous studies on this topic concentrated on technologies including mobile technologies, undersea cables, virtual landing points, telecentres, free public Wi-Fi, virtual Apache satellite terminals, digital whitespaces, and fiber technologies (Oh, Kim & Shin, 2022; Stork, Calandro & Gamage, 2014; van den Velden & Sadowski, 2023). However, studies specific to free public Wi-Fi in the context of Malawi have received limited attention among information systems and community informatics scholars. Related studies on public access to internet have focused on telecentres (e.g., Bichler, 2008; Chikumba, 2011; Kapondera & Chigona, 2017; Kapondera & Hart, 2016; Kapondera & Mtambo, 2024; Makoza, 2019). This leaves knowledge gaps in the understanding of the adoption, appropriation, benefits, and sustainability of free public Wi-Fi. Further, the role of equitable and meaningful use of free public Wi-Fi in enhancing opportunities for citizens in the country is not well understood. The study attempts to address this knowledge gap in response to the call for more studies on free public Wi-Fi and digital inclusion in the context of developing countries (Ragnedda & Gladkova, 2020; Vassilakopoulou & Hustad, 2023).

From the discussion above, the study was guided by the research question: What are the public opinions about free public Wi-Fi implementation in Malawi? To answer this question, the study used a qualitative research approach to understand a broader perspective of readiness and adoption of free public Wi-Fi beyond technology and better explanation of contextual issues about free public Wi-Fi (Davison & Martinsons, 2016; Vassilakopoulou, & Hustad, 2023).

The rest of the paper is presented as follows. The Section 2 presents the background to the study. Section 3 summarises the theory guiding the study. Section 4 highlights research methodology used in the study . Section 5 summarises research findings. Section 6 discusses the research findings followed by the conclusions drawn from the study.

2. Background to the study

2.1. Digital technologies landscape of Malawi

Malawi is located in southern Africa and has a population of about 20.4 million (Word Bank, 2023). The country is classified as very poor in terms of social and economic development. A large part of the population has no steady income and are more vulnerable to shocks (e.g., economic and climate). The economy of the country relies on rain-fed agriculture, and about 80% of the population engages in subsistence farming for their livelihoods. Further, there is high unemployment among the able-working groups. Some members of the communities rely on causal labour and social support programs (Brugh, Angeles, Mvula, Tsoka & Handa, 2018).

Currently, internet teledensity in Malawi stands at 24% and cellphone teledensity at 60% (ITU, 2024). However, not all cellphone owners are able to access internet because of lack of digital skills, high cost of data bundles, poor network quality and absence of mobile network towers (Makoza, 2023; Makoza, 2024). The government of Malawi is attempting to improve internet access. This is evident in the strategies that the government has developed to address issues related to access to digital services. For instance, the Digital Economy Strategy (2021-2026), the Malawi National ICT Strategy and Digitalization (2022-2026), and the Universal Service Fund (USF) Strategic Plan 2022-2027 (Makoza, 2022). Further, the government of Malawi, together with private sector organisations and international development partners, has launched programs to support ICT access, ICT skills development, and promote social inclusion. Some of the programs include establishing telecentre in every constituency across the country, digital skills training for the youth, and providing access to ICT in public institutions and schools (Makoza, 2022).

In 2021, the government of Malawi received funding of US$1.4 million from the World Bank and started offering free public Wi-Fi as part of the Digital Malawi project (PPPMW, 2022). The project targeted 32 public hotspots, including airports, schools, markets, libraries, and hospitals. Users are required to register to access the services. Once registered, each user is granted about 100 MB of data per day to access internet using their devices within the location of the hotspots (PPPMW, 2022).

2.2. Challenges of digital inclusion in Malawi

There are digital inclusion challenges in Malawi despite having digital inclusion related policies and strategies at the macro level; the collaborations of government and international development agents to promote access and use of digital technologies. Access to the internet remains a challenge, partly due to limited digital infrastructure, limited skills, a lack of disposable income to spend on ICT services, and the high cost of internet services (Bichler, 2008; Chinyama, 2022; Makoza, 2023; Yeandle, 2023). Remote and rural communities remain

isolated from access to digital technologies because of lack of basic infrastructure, including accessible roads and electricity supply. Some parts of rural areas have access to telecentres, but patronage and use of facilities are challenging. Other studies highlighted that non-use of telecentres is because of lack of relevance to rural communities' activities and limited digital skills (Chikumba, 2011; Kapondera & Hart, 2016; Makoza, 2019). Further, rural communities have limited income opportunities to have disposable income to pay for digital technology services. Economic sustainability has been raised as one of the issues affecting telecentres, where the majority operate at a loss. The government is also considering abandoning the telecentre program because of political interference in the implementation of the program by the regulator (Kapondera & Mtambo, 2023).

3. Theoretical foundation of the study

In the context of the study, opinions are judgements that people have related to technology can be based on beliefs, attitudes, subjective meanings that people assign to technologies based on the anticipated benefits and negative effects of technologies (Baaren, Van de Wijngaert & Huizer, 2011; Yang, 2022). Understanding opinions is significant because it can influence the design government policy programs related to technology provision and access (Simon & Jerit, 2007). Public opinions can highlight users' intentions to adopt and use a technology or not (Ortega, Garcia-Ramirez & Parreno, 2023; Ueno, Dennis & Dafoulas, 2023).

Opinions about technology before adoption can vary. Kerschner and Ehlers (2016) suggest attitudes towards technology from researchers' perspectives to include enthusiasm (e.g., the belief that technology is good and will make improvements and solve problems), determinism (e.g., technology is neutral and social change comes automatically because of technology), romanticism (e.g., subjective unease or desirable beliefs about technology), and scepticism (e.g., suspicions about the dangers of technology to society). On the perspectives of the public opinions, Yang (2022) noted that public opinions on technology can be categorised into three: positive (benefits of technology), negative (risks related to technology) and neutral (not supporting negative or positive views about technology). Ortega, Garcia-Ramirez and Parreno (2023) used similar categories of public opinions to understand the views of young people on autonomous vehicles. For consistency in understanding opinions on technology, the study draws on the three categories of opinions to understand the public views on free public Wi-Fi. The three categories are summarised as follows:

- *Positive opinions:* are judgements that people have related to the benefits they can derive from using technology (Kerschner & Ehlers, 2016). The positive opinions can include statements related to perceived benefits of free public Wi-Fi and providers of internet services and other organisations that use free public Wi-Fi services to offer other public services (Grechyn, 2020; Oh, Kim & Shin, 2022). The study will use the concept of positive opinions to understand the different positive views related to free public Wi-Fi.

- *Negative opinions:* statements that people utter related to potential risks that can affect individuals when using technology (Choi, Carpenter & Ko, 2021; Silva & Dias, 2007). Negative views about free public Wi-Fi can inform users about the potential risks of the

technology and explain why some users may not be interested in using free public Wi-Fi. Investors and government officials can also have a better understanding of the potential risks of free public Wi-Fi and plan for resources and actions to mitigate the risks (Ueno, Dennis & Dafoulas, 2023; Dalyot, Sharon, Orr, Barel Ben-David & Baram-Tsabari, 2021). The study will attempt to understand the negative views related to risks of using free public Wi-Fi for individuals, groups and communities.

- *Neutral opinions:* views that people make in relation to technology that have no positive or negative suggestion (Kerschner & Ehlers, 2016). Neutral opinions about free public Wi-Fi can be statements or attitudes describing features or processes about technology, services, users and context (van den Velden & Sadowski, 2023; Baaren, Van de Wijngaert & Huizer, 2011). The study will also attempt to highlight general views that are not positive or negative related to free public Wi-Fi.

The study recognises that there are factors that can influence public opinion related to technology (Ortega, Garcia-Ramirez & Parreno, 2023). The factors include social environment (internal and external), level of knowledge, personal circumstances, motivation, and values that people hold (Druckman & Bolsen, 2011). The assumption in the study is that public opinions can be observed in media through text, images and visual representation of content on the internet (Simon & Jerit, 2007). For instance, similar studies have analysed public opinions on social media platforms such as Twitter, Facebook, and Instagram to understand the views of the public related to technologies (Ortega Garcia-Ramirez & Parreno, 2023; Yang, 2022).

4. Research methodology

4.1. Research approach

The study used a qualitative research approach, which can be used to understand subjective meanings that people assign to events or objects and can guide their intentions and actions towards the use of technologies (Gioia, 2021). Qualitative research fitted well with the objective of the study. The phenomenon of public Wi-Fi was new to the context of Malawi. It was important to understand the opinions, motivations, and beliefs of stakeholders to ensure that the investment was worthwhile (e.g., prioritising public Wi-Fi amidst other pressing issues that require public funding, including health facilities, education infrastructure, road infrastructure etc.) (Grechyn, 2020; Williams, 2012). Further, understanding the potential to use of public Wi-Fi was crucial because there was evidence of non-use of other free internet access services e.g., telecentres (Kapondera & Mtambo, 2023). In line with the research objective, the study used an exploratory case study approach (Thomas, 2011) to understand broader issues of the adoption and use of free public Wi-Fi beyond technology in the context of Malawi.

4.2. Data collection

The study used secondary data including policy documents (i.e., documents that provide vision of government programs and actions for a particular sector (Bowen, 2009)). Project

documents sourced from government agencies and international development agencies were used in the study. Secondary data represented records of events and processes that were related to free public Wi-Fi (Morgan, 2022). Purposeful selection was used to select documents that were relevant to the study (Bowen, 2009). The criteria for the documents were (a) documents presenting ideas about universal access to ICT in the context of Malawi (b) documents related to the public Wi-Fi in Malawi. The data covered the period from 2013 to 2023. Table 1 summarises the data collected from the study.

Table 1: Summary of data used in the study.

Category of data	Sources of document(s)	Qty	# of Pages	ID.
Documents				
Digital Malawi program phase 1: Digital foundation project	www.pppc.mw	1	111	#PD1
Malawi national ICT strategy and digitalization	www.malawi.gov.mw	1	51	#PD2
Malawi Digital Economy Strategy	www.npc.mw			#PD3
Public Wi-Fi Project	www.macra.mw	1	78	#PD4
Online media				
Facebook posts and comments	www.facebook.com/users	1	23	#FOC
	www.facebook.com/malawigovernment	1	29	#GFB
Online news articles	www.nyasatimes.com	5	6	#ONC
	www.mwnation.com	8	21	
	www.times.mw	2	3	
	www.ppc.mw	7	17	

As can be seen in Table 1, media reports from online news websites and social media posts from the public were also included in the data. The aim was to improve the diversity of opinions related to free public Wi-Fi (Thomas, 2011). Social media are online platforms that allow individuals to freely share their ideas or opinions on matters that affect their lives (McKenna, Myers & Newman, 2017). Social media platforms e.g. Facebook provided more options for gathering public opinions to complement other forms of gathering information, including surveys, interviews, and observations (Gioia, 2021). In the study, the ideas about free public Wi-Fi emerged from government aspirations for universal access to ICT espoused in the policy documents and project documents (from international development agencies and private investors). The media reports and social media data represented the perspective of the beneficiaries on free public Wi-Fi. These two perspectives of data were considered to avoid biases and develop a better understanding of free public Wi-Fi implementation (Bowen, 2009; Morgan, 2022).

4.3.   Data analysis

The secondary data was collected and stored in electronic format. Content analysis (Vears & Gillam, 2022) was used to analyse the data. The documents were read several times for the researcher to become familiar with the ideas that were presented in the documents. The text in the documents was then assigned codes that were later grouped into sub-categories. These were also refined and grouped according to the key themes (Vears & Gillam, 2022). Further analysis was conducted to group the codes into positive, negative, and neutral categories. The codes and text were exported into Microsoft Excel to summarise the codes and produce charts. The process was iterative, and at the end a report was produced to answer the research question guiding the study (Bingham & Witkowsky, 2022).

5.   Summary of research findings

The public opinions emerged from diverse stakeholders including government officials, international development partners, private sector organisations, special interest groups, local ICT association and the public. Overall, there were positive opinions in the corpus about the introduction of free public Wi-Fi (See Figure 1 below). However, there were also negative opinions (about 45%) on implementation of free public Wi-Fi. Neutral opinions in the corpus were related to general information or statements about free public Wi-Fi that had no implications for the implementation of the program.
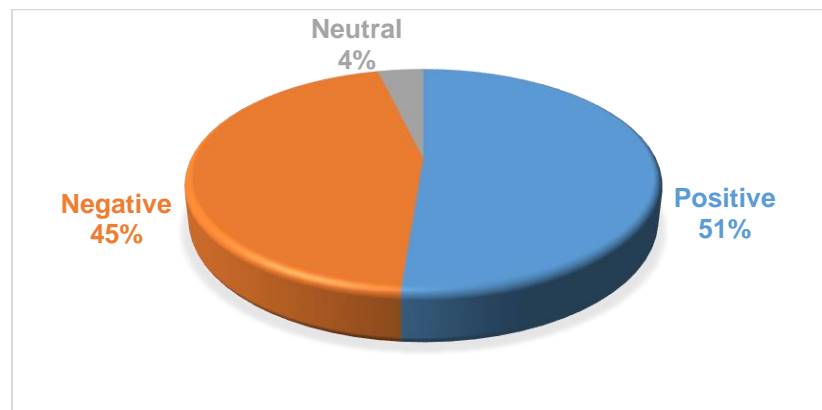

Figure 1: Summary of opinions about free public Wi-Fi

Stakeholders raised diverse opinions related to the introduction of free public Wi-Fi in the country. The issues were related to awareness of the project, collaboration between government and development partners and private sector organisations, and the investment model of the project. Government official conducted visit to various location identified for the project. These include markets, schools, libraries and the airport (See Figure 2).

Figure 2: Summary of categories of locations and examples (#GFB).

One of the reasons for the visit was to raise awareness of free public Wi-Fi so that potential users may know about the service. The government collaborated with international development agency and local telecommunications provider to implement free public Wi-Fi. The public raised concerns on the location and expected quality of the free public Wi-Fi. Other stakeholders raised issues related to trust, social norms, and the risks of using free public Wi-Fi. These issues are explained in detail in the subsequent paragraphs.

The corpus showed positive comments were noted related to the benefits of using free public Wi-Fi. The government was commended for introducing free public Wi-Fi at airports (to support visitors or tourists). Some people highlighted that free public Wi-Fi would support tourists during their arrival in the country, like in other countries that were offering such services. For instance, there was a comment on the need to move with time in development: "*Globalisation demands upward thinking, so by including Kamuzu and Chileka International Airports in this initiative, our airports are also on the same level with those around the globe*" (#ONC). Figure 3 summarises the number sub-categories in corpus.
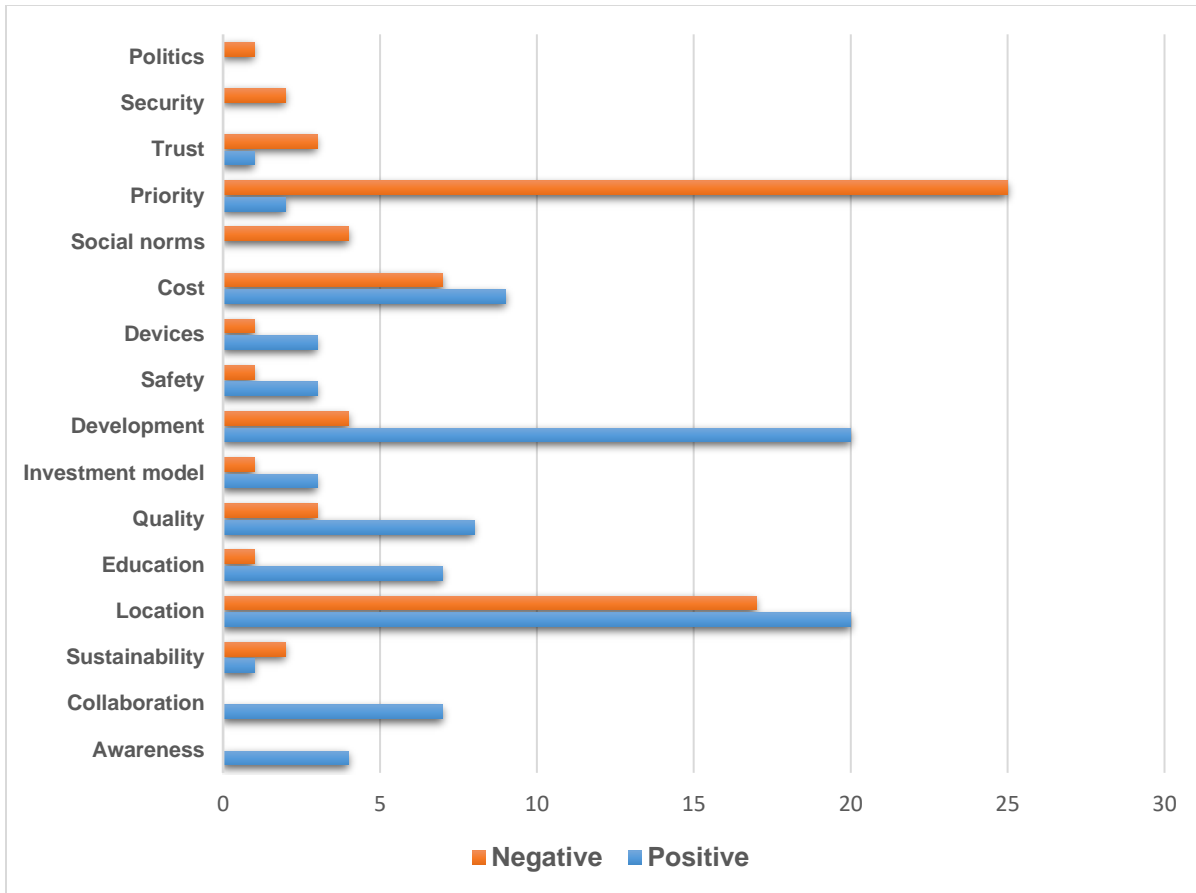
Figure 3: Summary of number of positive and negative opinions in the corpus

It was perceived that free public Wi-Fi was a good development that could support access to the internet among the public. The government officials notes that internet was necessary to support public service delivery. Hence, the opinions that the country should invest in free public Wi-Fi so that it was not left behind: "*To develop our country, we need to embrace new technology and propagate delivery of e-services to the Malawians*" (#GFB). Some users believed the free public Wi-Fi would support people who could not afford to buy data bundles. Furthermore, the free public Wi-Fi project would support communication during the COVID-19 pandemic. It was highlighted that implementation of digital infrastructure would support communication between hospitalised patients and their relatives: "*People in hospitals will also be able to connect with their loved ones and those in markets will be able to do business online.*" As noted in the statement, there were also perceptions that free public Wi-Fi would encourage businesses to transact online as one way of preventing the spread of the Corona virus.

Stakeholders perceived that free public Wi-Fi services may support education activities in schools and universities: "*the initiative will benefit students and allow them to perform better as they access the latest information at their schools and libraries*" (#ONC). This meant that students would use free public Wi-Fi to access information at no cost and access up to

date information related to their studies. Access to information may result in improved academic performance of students.

While there were positive comments about free public Wi-Fi, there were also negative views about the program. Other people felt that free public Wi-Fi was a wrong priority considering the pressing needs of the country related to food security and the availability of medicine in public hospitals: *"Why government don't spend the free Wi-Fi billions to invest into buying health equipment, fertilizer subsidy and fix the economy that is suffering"* (#OFC). At the time of the study, the country was affected with the COVID-19 pandemic, some parts of the country experienced droughts and floods. The government had limited financial resources, and some stakeholders perceived that free public Wi-Fi was not a good priority.

Selection of location to implement the free public Wi-Fi attracted attention of the public where some people felt that the chosen locations were not suitable for users to use the free public Wi-Fi: *"… you put free Wi-Fi in a market, who can find time and free space to surf the internet in that area? What is the purpose of introducing free Wi-Fi in a market?"* (#OFC). This meat that some users were not comfortable to use free public Wi-Fi in a crowded place like a market. Some stakeholders perceived that the selection of the location was problematic. The initial locations were schools, markets, hospitals, airports and libraries (recall Figure 2). These were in urban areas of the southern and central regions and not in rural or remote locations. Hence, some people felt that some parts of the country were excluded: *"The segregation of Mzuzu [main city in the northern region] does not sit well with some of us. We all pay tax and government should see that wealth is equitably distributed. Ours is a very tiny country, there is no excuse at all on this project"* (#OFC). These findings may mean that some users did not understand why the government was implementing free public Wi-Fi in the selected locations.

There were comments on cybersecurity issues that could arise when using free public Wi-Fi. One stakeholder noted that: *"Hypothetically Malawians will now be a target of cybercriminals on an extensive level."* (#OFC). This may mean that as more people were accessing internet, there was also potential risks. Some users were sceptical about free public Wi-Fi and believed that it was a source of cybersecurity risks. The users highlighted the potential exposure to online scams and loss of personal information.

6. Discussion of research findings

The study was guided by the research question: What are the opinions about public Wi-Fi implementation in Malawi? The findings of the study showed positive and negative opinions about free public Wi-Fi. The positive opinions were related to viewing public Wi-Fi as a good development for the country in catching up with advanced countries, the creation of collaboration opportunities for government, development agencies, and private sector organisations, supporting education activities, and free public Wi-Fi supporting communication and as a prevention measure during the COVID-19 pandemic. The negative opinions of free public Wi-Fi were that the program was a wrong priority amidst other pressing issues such as the availability of drugs in public clinics and limited access to

agriculture input subsidies; the free public Wi-Fi program concentrated in urban areas and remote and rural areas were left out; others felt that some of the locations selected for the services were not ideal for accessing the internet due to overcrowding, e.g., at the market. Another interesting point was that the introduction of free public Wi-Fi was against social norms because schools' rules did not allow learners to use smartphones in schools. There were also opinions about concerns over security when using the services and that the program was not sustainable after a pilot of three years. Hence, there were options for consideration of reducing the cost of data bundles so that everyone can afford to access the internet rather than investing in an initiative that is not long-term.

The findings on positive opinions about free public Wi-Fi were consistent with similar studies. For instance, the opportunities for collaboration between the government, development partners, and the private sector. Williams (2012) highlighted a public-private partnership model of investment that can support the government in developing ICT infrastructure that requires specialised skills and high cost of investment. The current study demonstrated that the benefits of collaboration went beyond government and the public. Mobile operators would also contribute to infrastructure to extend their coverage of services to other parts of the country. Another interesting finding was the government's role in raising public awareness of free public Wi-Fi services. This was important for the government of Malawi because it was experiencing challenges with telecentres. In a way, free public Wi-Fi was thought to be something new and different from how telecentres were implemented. As Kapondera and Mtambo (2023) reported that telecentres were being discontinued. Free public Wi-Fi was believed to be a more relevant approach that would support universal access to ICTs.

The findings on negative opinions about public Wi-Fi were similar to the findings of other studies. Location was one of the issues highlighted in the findings, where urban areas were prioritised, and rural and remote areas marginalized. This finding was consistent with other studies that have highlighted the importance of choosing a correct location for free public internet access programs (McShane, & Grechyn, 2019; van den Velden & Sadowski, 2023). Our findings shed light on the need for the right balance in the selection of locations in the free public Wi-Fi programs and needs of the users, e.g., the selection of airports to have free public Wi-Fi where citizens felt that tourists and the elite were being privileged compared to citizens in rural areas (where they do not even have basic needs including safe drinking water and electricity). It was believed that people in rural areas were left out, although they were taxpayers.

Concerns over cybersecurity and risks of loss of personal information when using free public Wi-Fi were consistent with other studies (Choi, Carpenter & Ko, 2021; Dalyot, Sharon, Orr, Barel Ben-David & Baram-Tsabari, 2021). This may mean that robust safety measures were necessary in the implementation of free public Wi-Fi to ensure that users would feel safe and prevent non-use of the services (Choi, Carpenter & Ko, 2021). Another issue was the sustainability of the free public Wi-Fi services. The findings showed that there were doubts about the continuity of the program. The model of investment did not highlight how operating expenses would be met in the long term. The statements that emerged from government officials and international development partners only highlighted the amount to

be spent on implementing the services for three years (e.g. US$1.4 million). Thus, economic sustainability was a key focus of the discussion. Similar studies have noted other dimensions of the sustainability of ICT for development projects and they include political, social, technological, and environmental (Aklilu, Lessa & Nagesh, 2020). Hence, there is a need for a more holistic perspective on the sustainability of free public Wi-Fi in the country.

From the theoretical perspective of the findings, three interrelated perspectives of free public Wi-Fi for the context of developing countries are proposed and highlighted in Figure 4. These are investment, appropriation and operations. Like other ICT public infrastructure, free public Wi-Fi investment require understanding the requirements of beneficiaries and other stakeholders (McShane, & Grechyn, 2019). The government, private sector and development partners (e.g. in public private partnerships) may need to understand the priorities of the users and establish the cost of free public Wi-Fi program. Part of this process may need to integrate free public Wi-Fi service in other public services that are related to social economic development to guarantee adoption of the free public Wi-Fi (van den Velden & Sadowski, 2023). However, this process may require government officials to manage politics and interests of stakeholders and the partners involved in the free public Wi-Fi program (Williams, 2012).
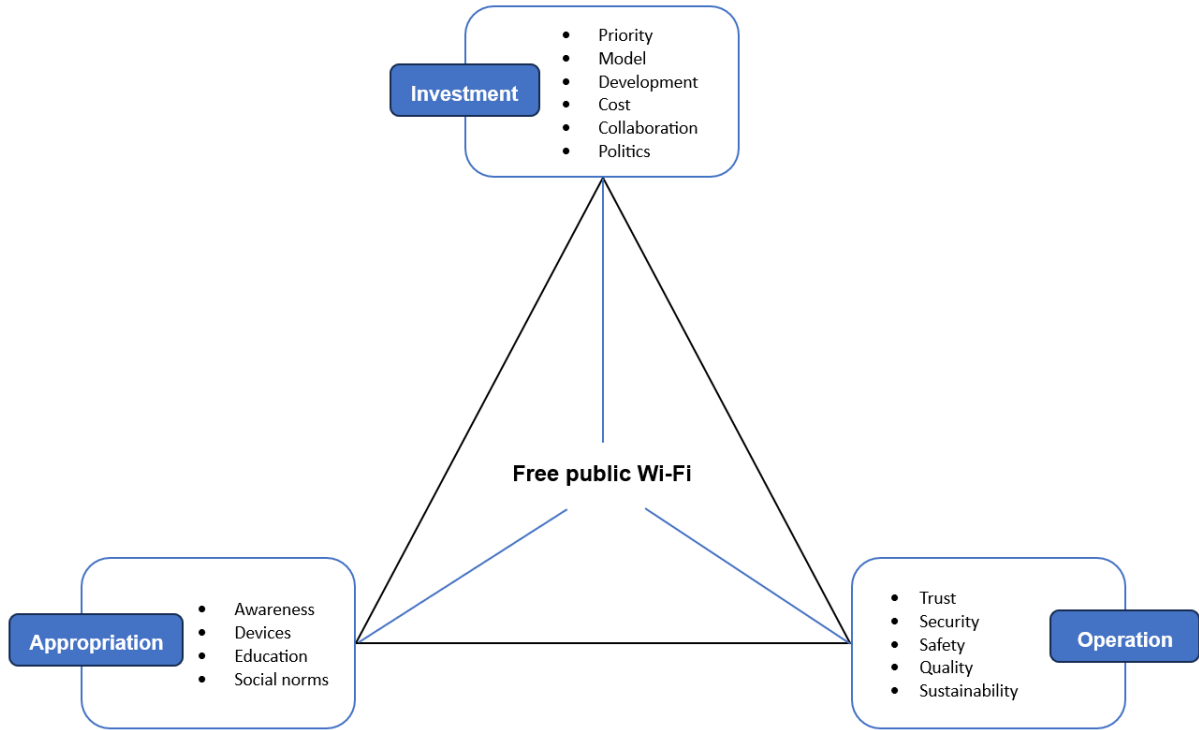

Figure 4: Proposed free public Wi-Fi implementation conceptual model.

Appropriation relate to how free public Wi-Fi is integrated in daily activities of individuals or communities or change existing practices and used in different ways to meet the needs of users and stakeholders (Ylipulli, Suopajarvi, Ojala, Kostakos & Kukka, 2014; Grechyn, 2020).

The process may require stakeholders to be aware of the potential uses of free public Wi-Fi and the benefits that may be derived from the technology. Hence, education of users on how to use free public Wi-Fi is necessary. Another aspect to education is awareness of social norms of the users where technology should not pose threats or risks to the way of living, beliefs and values of the users and communities (Choi, Carpenter & Ko, 2021). It is also important that users have access to devices (e.g. smartphones, tablets and laptops) to connect to the free public Wi-Fi networks and use internet services (Chigona, Mudavanhu, Siebritz & Amerika, 2016).

Operation dimension of free public Wi-Fi relate to how hardware, software, information and services function to meet the goals of the users (van den Velden & Sadowski, 2023). The ability of the users to achieve their goals when using free public Wi-Fi is paramount. This extend to quality of the free public Wi-Fi services in terms of time it takes to complete a task (e.g. net uploads and download speeds), network access (availability of the services), applications access (ability to use applications on a device) and user experience (ability to recover from errors and obtain support when required) (Luhanga, 2024; Makoza, 2024). Users of free public Wi-Fi require the ability to have confidence in the systems and feel secure when they are using the services (Choi, Carpenter & Ko, 2021; Dalyot, Sharon, Orr, Barel Ben-David, & Baram-Tsabari, 2021). For the organisations providing free public Wi-Fi services, there should be possibilities to provide the service for a long-term and ensure sustainability. Other dimensions of sustainability such as social (aim at improving the quality of lives of individuals or communities), economic (e.g. operating in an environment when benefits can be realised) and environmental (consideration of protecting the environment so that future generations may use the natural resources) (Aklilu, Lessa & Nagesh, 2020).

The study makes the following recommendations for practice: (a) Free public Wi-Fi programs also require an assessment of the needs of beneficiaries before investment. This can go hand in hand with the assessment of the availability of digital devices and the assessment of digital skills, so that initiatives can support potential users and the appropriation of the free public Wi-Fi services (Grechyn, 2020; Williams, 2012). (b) Collaboration with private sector organisations, especially telecom operators, should be encouraged to produce a financially sustainable model of free public Wi-Fi investment where all parties (e.g., government, private sector, and beneficiaries) can benefit from the programs (McShane & Grechyn, 2019).

7. Conclusion

The study set out to analyse public opinions on the implementation of free public Wi-Fi in the context of Malawi. The study showed that there were positive and negative views on free public Wi-Fi. The positive opinion confirmed the benefits that can be attained from using free public Wi-Fi, including addressing digital inclusion, supporting education activities, improving safety in public health facilities during the COVID-19 pandemic, and improving access to public services that can be offered through online platforms. The negative opinions were related to the priority of the investment for the free public Wi-Fi program, consideration of locations where some areas were excluded, political issues and the cost of internet service in the country, and limited consideration of the availability of devices that would support the use of the free public Wi-Fi.

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