Journal of Information Systems and Informatics
Vol. 6, No. 1, March 2024 e-ISSN: 2656-4882 p-ISSN: 2656-5935
DOI: 10.51519/journalisi.v6i1.636 Published By DRPM-UBD

A Review of Internet Use and Access for BRICS Sustainable Futures: Opportunities, Benefits, and Challenges

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Abstract

Access to the internet and modern technologies have acted as a catalyst for increasing digital literacy skills in society over the last few decades. The use of modern technologies within society has accelerated disproportionately. Digital literacy and access to modern technology products have been described as beneficial to addressing the knowledge and skills deficit. Yet, insights concerning the comparisons of BRICS member countries in addressing literacy/digital skills and sustainable and affordable access to modern technology products, as well as internet delivery, remains nascent. The current literature lacks comparative studies on internet use and access. This study uses Technology Acceptance Model (TAM) constructs to better understand internet use and access among some of the BRICS member states. The purpose of this qualitative study is to carry out a review that compares internet use and access among the five member states. It is key to understanding trends in technology products, processes, people, and real-time data sharing among BRICS members. It draws on the available reports in English on internet access and use. Then, it analyses and provides a discussion on the relationships between different countries and possible opportunities. This study concludes that the affordability of internet access remains a challenge. The challenge is further exacerbated by the demand to have access before one is at liberty to effectively use it. On the other hand, the challenge for people with access to the internet is to understand and reap the full benefits of usage. These results are specifically discussed, with implications for research and practices within BRICS member states. Several limitations to the study are presented, which in turn opens up potential future research perspectives. In conclusion, BRICS members should continue forging strong links to navigate new opportunities and identified challenges.

Keywords: Internet; BRICS; Digital literacy skills; Sustainable futures; Modern technology access and use

1. INTRODUCTION

According to [1], BRICS economies continue to show rapid growth. The United Nations [55] projects that by 2055 over two-thirds of the world's population will

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be residing in urban areas as compared to 55 percent in 2018. However, [2] has cautioned that the growing gap in inequalities within many countries threatens broad-based development. With the advances in technology, access to information sources has become significant for bridging the knowledge divide that exists in many developing countries. So, the BRICS member states should consistently look at economic growth that supports both stronger domestic growth and broader participation in the digital economy. BRICS should strengthen by increasing both the capacity of their economies as well as their markets to ensure digital inclusivity and dynamism.

BRICS continue to emerge as an independent group that seeks to reform the global agenda internationally. The BRICS is an independent group that is made up of five economically emerging countries (Brazil, Russia, India, China, and South Africa) that have the potential to disrupt and reform the global economy. [1] in their study focusing on BRICS countries found that every member state is improving their ICT sector to be competitive and relevant in the modern digital world by advancing communications and improving economic growth. The governments of BRICS members need to recognise the importance of digital access and use of the internet and allied support initiatives that focus on assisting citizens to have access to the digital economy.

Study by [3] states that regions with good internet infrastructure have the opportunity to attract socio-economic activities. [4] adds that people and organisations that have access to ICTs are empowered and in a better position to participate in the global economy and as a consequence can enhance their socioeconomic status. [1] point out that emerging economies have realised the importance of ICTs to better attract foreign direct investment in the ICT sector. In general, ICTs provide economic opportunities. [1] stress that the implementation of ICTs provides opportunities for developing states, particularly in knowledge management and resources. [5] argue that most of the literature on the speed, use and access of the internet is focused on the cities as compared to the rural populations/areas who are playing catch-up.

Study by [6] explain digital poverty as a lack of access to ICT resources and infrastructure with socioeconomic exclusion evident in both rural and urban communities. In addition, [7] attributes digital poverty to unequal access to resources such as internet connection points and that has largely contributed to information and digital inequality within communities and countries. The BRICS countries must, therefore, work collectively towards ensuring that they ease high levels of poor skills and knowledge to both access and then use the internet adequately. [8] stress that having skilled and educated workers is critical for developing economies. [9] point out that lack of access to digital infrastructure has an impact on the population skillsets and the type of economic opportunities that will subsequently be attracted. So, BRICS countries should advocate for increasing

their budgets for ICT infrastructure and providing sufficient training in digital skills to ensure citizens are not left behind.

Study by [10] pointed out that the literature on the BRICS suggests that the partnership is largely focused on development. Given the aforementioned, more research is needed on the BRICS members concerning their internet connections, use, access and other problems contributing to the digital divide. The purpose of this qualitative study is to carry out a review and highlight the level of internet use and access among the five BRICS member states. The objectives are to understand what has been done according to the literature on internet access and addressing the digital divide that exists in BRICS countries and to recognise the challenges faced by BRICS countries in providing ICT infrastructure and bridging the divide.

There are several studies that have focused on the country members of BRICS. However, the literature shows that there remains a need for studies that compare the BRICS in terms of the issues of internet connection access, use and related problems that lead to a digital divide. The BRICS members must capitalise on the internet's potential in establishing new businesses and making business processes more efficient, as well as providing citizens with lower internet connection costs. According to an international study prepared by [11] which sampled 233 countries between April and May in 2022, it was found that India is ranked the 5th least expensive in the world for acquiring 1GB of mobile data at an average cost of 0.17 USD, with China ranked 22nd with an average of 0.41 USD, followed by the Russian Federation ranked 30th with an average cost of 0.48 USD, Brazil ranked 54 with an average price of 0.77 USD, and finally, as far the BRICS countries are concerned, South Africa ranked 135th with an average price of 2.04 USD. BRICS can thus further strengthen their investment in internet infrastructure for them to reduce costs and realise their digital capabilities. Most of the disadvantaged communities in South Africa rely on using mobile data to access the internet instead of Wi-Fi connections and wired connections.

2. RELATED WORKS

2.1. Internet connection point challenges

Acording to [12] report that countries in Africa, Latin America, the Caribbean, the Pacific Islands and developing countries in the Middle East and Asia have the lowest internet speed and coverage whilst they have a growing population, many of which live in some of the poorest countries when compared to the Global North. [12] further state that almost half of the world's population has no access to an internet network connection, and this is one of the main contributing factors to the digital divide [56]. [3] in their study found that weak ICT literacy skills and the high cost of internet connections make it challenging for some people to access the internet. Key findings from [2] study carried out in South Africa highlighted

that digital skills to use the internet, the high cost of internet access, unstable internet connections and poor internet infrastructure are some of the reasons why some people struggle to access the internet. Therefore, it is clear that as much as the number of people accessing the internet using mobile phones has rapidly increased, some people still don't have access to or know how to use other ICT tools available online.

Study by [13] emphasise that better access to finance allows people to have access to several services that can break the mould in terms of inequalities. Having financial support affords poor households a choice of what technology to use as they were previously unable to afford many of the options. [14] results point out that only 28.8 per cent of households had access to a main source of income in 2020. Therefore, most such households are unlikely to use their scarce resources on internet connections and advanced technology products. The differences between an individual's family background, financial support, and living standards dictate how many individuals can access an internet connection. High levels of poverty and inequalities in some countries thus make it difficult for many people to have easy access to the internet, much less at a speed of their choice. Financial inclusion is important in ensuring that people have the necessary support to access and use technology on various platforms such as online mobile banking [13]. Moreover, financial inclusion can break barriers for potential internet users [15]. Having access to the internet can also break similar barriers that exist in the BRICS countries.

Study by [16] reported that three (Russia, China, and India) of the five BRICS member states have realised about 15 per cent economic growth while the overall world average growth was just 9 per cent during the pre-financial crisis/pandemic era. [1]) acknowledge that the advancements in technologies have increased drastically in BRICS member countries; however, the availability of high-end internet infrastructure remains a problem. ICT technology rollout and implementation has not been growing at the same pace in all BRICS countries. For instance, [17] state that Brazil, South Africa, and Russia have declined in their rate of implementation of ICTs, as compared to China which has maintained a steady growth. Therefore, differences and inequalities remain in the implementation of ICTs in BRICS countries, and this may have socio-economic impacts in the future.

2.2. Internet use in financial services

Study by [18] defines digital literacy as the ability to understand, access and manage data using the internet on a digital platform. [57] stress that literacy around digital finance is essential in transforming society in the current digital era. This involves having adequate digital skills to operate on digital financial platforms, with an

understanding of what data is required for input and processing and what the expected outcomes are.

Internet use within financial services continues to rapidly increase as more people have access to computing and mobile devices, and internet connection points, and feel the digital space is secure. [19] in their study highlighted the importance of using the internet to access financial services platforms by stating that users have the opportunity to access their financial service providers at any time which promotes business efficiency. In agreement with [19], the [20] in their report stated that digital financial services are becoming widely used and the number of active users on various platforms continue to increase. BRICS should advocate for their members to strengthen their existing plans for digital literacy, especially within the financial sector.

ACI (the Financial Markets Association) has managed and operated payment solutions on behalf of its customers globally but is not active in all countries. According to the [21], there were 118.3 billion real-time payments made globally in 2021. India led the way for real-time payment transaction volumes in 2021 by recording 48.6 billion, and in the same period, Brazil recorded 8.7 billion real-time transactions, and 18.5 billion real-time transactions were made in China, whereas South Africa recorded only 123 million real-time transactions [21]. In addition, [22] state that India has led and embraced digital financial services by launching several platforms for users. In South Africa, real-time payments have not gained significant prominence as yet because of several factors that may include, but are not limited to, customer awareness, limited participation due to high fees charged by banks on Real Time Clearing (RTC) transfers etc.

2.3. Smart mobile devices, internet access and use

[3] points out that local network providers in many countries provide mobile internet access that is expensive yet low quality. Despite this, significant numbers of people still access the internet using their smart mobile phones, even though it is of a low quality and expensive, because of its convenience. People are accessing the internet via mobile phones rather than using the better data handling capabilities of broadband devices. Previously, many people in developing countries accessed the internet using expensive smart mobile phones which were designed for developed nations. [23]. However, in recent times advances in mobile phone technologies and their increasing affordability has resulted in even more people accessing the internet using their mobile phones.

The mobile phone, as a result of increasing affordability, has played an essential role in ensuring that people have access to information, particularly in those communities with limited resources for accessing information. This is because 87,8 percent of South African households now exclusively use cellular phones for

communication and information according to a 2019 survey [24]. In addition, technological advancement within the mobile phone industry has created opportunities for researchers in the information, data, and consumer research domains. As a result, several studies have investigated the use of mobile phones to access various sources of information in the new digital information era. For instance, [25] in their study carried out in Tanzania found that using mobile phones is an important tool to access information that may develop and increase the knowledge of farmers to make informed business decisions. On the other hand, other researchers have focused on the association between income and internet access [26, 27]. For example, [27] in their study on using secondary data found that lower-income and less-educated users are more likely to be smartphone-dependent as the only way for accessing the internet and the information they seek. Smartphones make provision for people to have easy access to the internet because some mobile phones are more affordable than other computing devices used to access the internet like laptops. Financial support and ease of access and use become the denominators when deciding what technology can be afforded.

Several factors lead to individuals making use of mobile phones to access, retrieve and share information. The widespread availability of mobile phones presents an opportunity for information sharing in society. Access to mobile phones on the African continent has more than doubled in the last 21 years, 2000-2021 [28, 29]. While, locally, according to a survey carried out in 2019 by South African Statistics [24], a large number of South Africans access internet connections using their mobile devices (58,7%) as compared to those with access from their laptops or households (9,1%). Moreover, this means that only 9.1 per cent of South Africans had direct access to an internet connection at home in 2019. Using mobile phones to access information [25], has benefited communities in several ways. For instance, [30] asserts that recently there has been a significant improvement regarding access to financial information in Africa. The distribution of information using technology has afforded communities the ability to be better informed and better understand the available options for information on taking financial loans, for instance.

3. THEORETICAL PERSPECTIVE

The literature agrees that the Technology Acceptance Model (TAM) is a theory coined by Fred Davis [31]. It had the intention to explain the factors in existence that determine how and when users come into contact with and accept to use a new technology. TAM was introduced by [31] to specifically personalise and describe an individuals' potential use of accepting or trying new advanced technologies across various computer technologies [32]. TAM has advanced since its inception over the years with [33] developing what we may refer to as the final version in which they replaced the attitude variable with the Behavioural Intention (BI) variable when they found that both Perceived Usefulness (PU) and Perceived

Ease of Use (PEOU) directly influence BI. In addition, [34] add that PU, PEOU, and BI are considered internal variables to the user, especially since they are focused on providing insights into the user's beliefs instead of external variables that are intended to describe everything else except the user's beliefs. Study by [35] further adds that the TAM has strong behavioural elements in nature and presumes that an individual will consciously act freely without any limitations when an intention to act arises, despite several constraints in the real world limiting their freedom to act, such as time restrictions, limited ability, unconscious habits, environmental and organisational limits.

Most of the TAM studies focus on contributing various phenomena to the theories, and few manage to successfully extend the theory. As is the case with the TAM, it was influenced and accepted by the original Theory of Reasoned Action (TRA). A large number of information systems studies adopt the TAM extensively because of its simplicity but forget to address the limitations of the model. Study by [31] had a belief that two factors determine whether a computer system will be accepted by its potential users, and this resulted in basing the TAM on two major constructs which replace the many attitudinal measures of the TRA with its technology acceptance construct and is defined by [31] as:

1) Perceived Usefulness (PU): Is described as the extent to which an individual believes in their capacity or is convinced that using a particular technology will lead to a better performance of their job and a better productivity level.
2) Perceived Ease of Use (PEOU): Is described as the degree to which an individual believes there is relatively little, or no effort required to use the technology on their own.

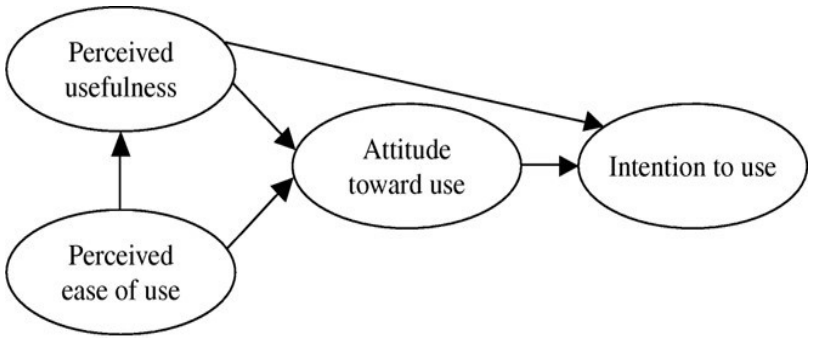

Figure 1. Davis' Technology Acceptance Model [31]

Study by [36] and [32] agree that PU is the degree to which an individual has confidence that the usage of a system will improve their performance while PEOU is the degree to which an individual believes that using a given application is free of effort.

Extending the TAM to the study subject and theme. The TAM is used to better understand this article's topic, and not to attempt to change the original model. Figure 2 below is used to illustrate the model's potential contribution to the subject.

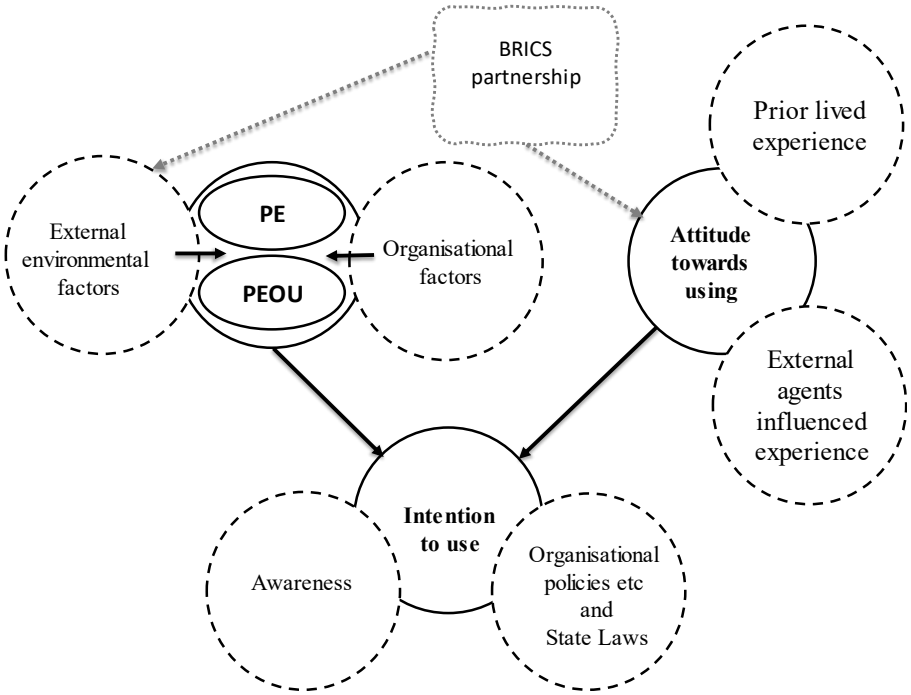

Figure 2. The TAM and its relationship to the BRICS partnership

PU and PEOU: The perceived usefulness and perceived ease of use variables are influenced by external environmental factors and organisational factors. There are external environmental factors that have an impact on how we perceive using a particular technology system. In organisations, users may act or operate based on their beliefs as long as it doesn't put the employer at risk, while others may act on what the organisation believes or permits and not follow their own convictions or consciousness. BRICS members perceived usefulness of the internet and perceived ease of using the internet stems from the role the internet plays in ensuring people have access to information. All member states understand the importance of providing internet infrastructure. However, because of several challenges, not all BRICS countries have been able to invest substantially in rolling out ICT infrastructure and thereby providing sufficient internet connection points. The improved availability of the internet will allow people from underserviced communities to be convinced that using the internet will provide access to opportunities, and foster increased exposure to new economic activities, thereby leading to an improved performance of the economy.

Attitude towards use: The mindset is influenced by how we feel towards using a particular technology system. Workers as individuals have their own beliefs because of their prior lived experience, whereas others believe in something based on external agents that have in turn influenced them. Therefore, a belief is not necessarily forced on them by external agents but rather influences a personal decision. It is fundamental to understand that not all individuals think the same way. The BRICS countries have the chance to influence each other as external agents and this may change the beliefs that other states had before about the value of internet connections. For instance, China has done well to ensure rural communities have internet infrastructure that is accessible to people. On the other hand, rural communities in South Africa are still struggling with internet access. The beliefs of people who have access to an internet connection and those without are likely to differ. When people have access to an internet connection, their attitude is often full of positive possibilities.

Intention to use: Organisational policies guide and encourage individuals to behave in a particular way. Organisations introduce technology systems because they are of view, they will assist the organisation to function efficiently (the motivation is often profit-driven). BRICS members should drive an awareness campaign to educate each member state on the importance of ensuring that citizens have access to adequate digital skills and ICT infrastructure. BRICS members should assist each other to also ease the high levels of internet access inequalities that exist within and between the countries.

BRICS partnership: BRICS has the opportunity to better coordinate member states to change their attitude towards using technology systems and to learn from each other's experiences. The attitude toward using technology systems for financial services transactions was exponentially higher in India as compared to the other member states regardless of each state's population numbers [21]. BRICS thus has the opportunity to look into the environmental factors that hinder other state members regarding the perceived use of technology systems and ease of use within the financial sector, for instance. This may be achieved through learning from each other's experiences.

4. RESULTS AND DISCUSSION

4.1 India

Study by [37] provides a simplified overview of the Indian digital divide scenario by stating that there is a digital divide in urban areas between wealthier and poorer communities. For example, people residing in urban communities but from poor families will still not have equal opportunities to access internet connection points as compared to the other wealthier families. Having high-end quality internet speed available in cities doesn't mean everyone has access to it.

Study by [8] argue that even though India is known as a global ICT leader, rural basic education schools continue to experience a lack of access to digital resources. Most of the rural schools in India lack access to ICTs, whereas the country as a whole is known to be a leader in the ICT sector. India can still learn from other BRICS members experiences to understand how they can better address their rural schools' lack of internet connection points.

India tends to experience periodic internet shutdowns when compared to the other BRICS countries. For instance, [38] raises a concern that internet shutdowns have risen radically in India, and they further report that the state has one of the highest rates of internet disruption internationally. [38] reported that the country experienced 106 internet connection shutdowns over one year period. However, [38] further elaborates that there has never been an internet connection shutdown across the whole of India, but it has affected certain sections of the country, particularly those accessing the internet via their smart mobile phones.

Study by [39] reported in a study that about 1 per cent of the households in India have access to a computer, with only 0.5 per cent having access to the internet. The study by [39] concludes that there remains a very low level of households having access to the internet via computers: however, it is unclear about the number of households who may access the internet via smart mobile devices. Nevertheless, since 2002, there has been an increase in the number of households with internet access. The Times of India newspaper [40] reports that according to the survey carried out by NSSO (2017-18), 23.8 percent of households have access to the internet, and 14.9 percent of rural regions have internet access. It is important to understand what inequalities exist in societies. For instance, we need to consider the fact that there are privileged households residing in rural communities, and as a result, they can afford internet access costs, whereas others cannot because of socioeconomic and affordability issues. So, not every household residing in rural communities is disadvantaged and lacks access to the internet. What is critical, however, is the quality of internet access in terms of the speed that is available in both urban and rural areas. It is one of the reasons that in India, the Prime Minister, Narendra Modi, launched a campaign (Digital India Campaign) in 2015 focused on moving India to more widespread high-speed internet connections by 2020 [41].

4.2 China

In China, [42] in their study, concluded that it is essential to develop rural communities with ICT infrastructure and thereby offer economic activities typically associated with urban society. This will then enable people from rural communities to have access to services and products equal to those residing in urban communities.

People in rural communities are using the internet to access several services. For instance, a study by [43] found that 2 million of the 8 million sellers using Alibaba's Taobao platform are from communities categorised as rural. Therefore, people in rural communities are using the internet to access and utilise services even though the proportion is not equivalent to those from urban communities. China's rural communities may thus well be better connected with internet infrastructure compared to other BRICS country members. In addition, the socioeconomic status of people living in the rural areas of China may not be comparable with similar communities in other BRICS countries like South Africa and Brazil. For example, you will find that most of the population residing in the rural areas of China have better access to internet points and are more digitally skilled when compared to other BRICS members.

4.3 Brazil

In Brazil, [44] highlight the importance of providing digital opportunities to the older population as there is a cohort of senior citizens who have never had the opportunity to use the internet. [44], in their study that sampled 78 older people in a centre that is devoted to teaching computer skills to seniors in Brazil, found that providing older people with technological infrastructure is not sufficient to strengthen their digital inclusion. Often the focus of digital inclusion is by giving attention to the youth and turning a blind eye to the older adults. In Brazil, it is reported that most of the ageing population have never accessed an internet connection in their lifetime [44]. [45], reported that about 86 per cent of citizens over the age of 60 years have never accessed the internet in Brazil. This suggests that most of them are from poor families, with little knowledge of using the internet and knowing how to access it. [46] report that the use of and access to the internet within households is generally high, yet unequal as a result of socioeconomic inequalities that exist in Brazil. [46] further add that the southern and central areas of Brazil are the mostly economically active regions, as compared to the north-east which has the lowest access to the internet in the country.

There are several reasons why many citizens in Brazil have no internet at home. For instance, [47] undertook a study to understand key reasons why Brazilians do not have internet access at home and most indicated that it was too expensive, although there has been an increase overall in the number of people having access to the internet and associated technologies. For instance, [48] reported that 38.3 per cent of households in Brazil had access to at least a computer, as compared to 10.6 per cent in 2000 [49].

The internet is an essential tool for knowledge sharing and seeking information in general. Yet [46] point out that little is known about how the Brazilian community use the internet to search for information. People make use of the internet to access various types of information and services. [50] report that women in Brazil

who have internet access are mostly quite educated and economically active compared to the general population. Having access to an internet connection is still not for everyone. [46], however, state the use of the internet to search for health information has increased, and this reflects an increase in the number of people who now have access to the online network [51.

Study by [44] point out that the more widespread deployment of infrastructure that supports internet connections is essential in addressing the existing digital divide, even though there has been an increase in the number of people accessing the internet in Brazil. Several initiatives like Telecentres have been implemented in Brazil as a measure for ensuring that citizens have access to an internet connection. Internet connection initiatives such as this are essential in poorer communities given that they not only focus on providing access but ensuring that the citizens are skilled enough to adequately benefit from using the internet. For instance, [44] stated that because of the low levels of internet connections in Brazil, the government has passed bylaws that support the increase of localised technology centres to ease the digital divide.

4.4 South Africa

South Africa remains one of the most unequal societies in the world, because of decades of racial exclusion [52]. The National Development Plan (NDP) 2030 emphasises that the levels of economically inactive people should be addressed to raise more people out of poverty and in turn boost the economy. [52] stated that: "To eliminate poverty and reduce inequality, South Africa has to raise levels of employment and, through productivity growth, the earnings of working people". To a greater extent, there is a direct link between the cost of living for the poor and being able to actively participate in economic activities. The existing inequality and poverty levels contributes to the digital divide in terms of who gets to afford what technologies to use and access information.

Study by [53] suggest that cities have better access by stating that urban areas have a higher level of technology access because of the availability of supporting infrastructure; however, this varies across countries. Access to an internet connection has moderately increased in South Africa, particularly in urban areas compared to rural ones. According to a [14] survey carried out in 2020, 71.6 per cent of urban areas have access to the internet as compared to 52.9 per cent in rural regions.

It will take time for South Africa to reach saturation on internet use and accessibility because many households rely on social grants as their main income source. It is for this reason that 63.3 per cent of South Africans had at least one member in their families who had access to an internet connection, of which only

9.1 per cent was from their homes whilst 63.3 per cent was from anywhere else (like work, public Wi-Fi spots, libraries, and schools etc.; [24]. Even though access to an internet connection has increased in urban areas, the numbers of people accessing the internet from their homes remains very low. For example, [14] from a survey carried out in 2020 indicated that for a province that is more urban than rural, like Gauteng, still only 14.9 per cent had internet access at home compared with the 74.8 per cent of the overall total who had some form of access to the internet. This suggests that citizens in the rural communities who have access to the internet at home is even fewer. For instance, Limpopo province is more rural and has just 1.6 per cent of people having access to the internet at home compared with the 43.2 per cent that had some other means to access the internet [14].

Unfortunately, the authors came across fewer sources of readily available studies of a similar nature in English for Russia. This is a gap that could be further explored and closed through BRICS co-operation. Equally relevant work that may have been produced in the official languages of each member state might be worth translating in order that the results can be shared amongst all BRICS members.

5. CONCLUSION

The purpose of this study was to review and highlight internet use and access among the five BRICS state members. By applying the TAM constructs to better understand internet use and access and the challenges faced, the study contributes to the model's deployment by providing information on the topics and themes of BRICS members internet access, use and digital divide realities. [54] point out that internet coverage is affected by several factors including regulations, infrastructure cost, and access to connections, amongst others. [55] asserts that it is essential to ignite conversations on how ICT and internet infrastructure must be managed and regulated. What is also key is understanding that the amount of bandwidth between two places can determine the internet efficiency, not necessarily the distance between two locations.

The review study adds to the existing literature, practices, and policies by consolidating similar work that has been undertaken within BRICS member states. The study found that adequate internet connection provision is a challenge in the rural parts of all BRICS countries when compared to their cities. The discussions further reveal that the governments of BRICS countries will not be able to fight digital inequalities alone, and all relevant stakeholders and actors in the digital technology field should work together. Governments should not only be interested in developing ICT policies that focus on internet infrastructure rollout but be equally concerned that the implementation doesn't exacerbate existing inequalities within societies between for instance rich and poor and urban and rural. With respect to co-operation, the study suggests that BRICS countries, particularly those with resources and skills, support other state members to make

sure that they all benefit as developing economies in ensuring that as many of their citizens as possible can partake in the digital economy. This review is aware of its limitations, for example, the study is limited at this stage to a review of the readily accessible literature in English which has largely excluded Russia. It could, however, serve as a catalyst for further study, discussion, and co-operation amongst BRICS member states.

To conclude, BRICS members need to consider not just human capital and technical resources when analysing the role of ICT technologies and the digital economy in their respective development, but to take into consideration also the socio-economic aspects suggested by the constructs of the TAM. By sharing their experiences and through further co-operation, BRICS countries can support each other in furthering their ambitions in the technological and ICT sectors as this can, directly and indirectly, potentially provide benefits for all states and help cement the BRICS partnership. The advent of the internet has transformed the ways people work and live, yet many are still excluded from its opportunities. By further addressing these aspects, more people living in the BRICS can be brought into the digital economy and can adapt to the changing ways of life and doing things that the increasingly digital world demands.

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