

The Digital Divide and Demand for Internet Services by Middle-aged Adults in Mankweng Township in Limpopo Province South Africa

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ABSTRACT

This study assessed the demand for internet services by middle-aged adults in Mankweng township in Limpopo Province of South Africa. The study was conducted in two parts of the township (Units B & F). The aim of the study was to assess the demand for internet services by middle-aged adults and to establish the underlying challenges faced by these adults related to accessing the internet during the Covid-19 pandemic era. The research was conducted by assessing the level of internet access, and evaluating socio-economic aspects influencing the use of the internet by the sampled people. Qualitative research was used to conduct the study and interviews were the data collection method. Thematic analysis (Braun & Clarke, 2006) was executed to analyse data. The findings revealed that most middle-aged adults are aware of internet services but experienced digital divide challenges of internet access and use. Internet access and usage are *still* low in Mankweng. This study offers recommendations for improving the awareness, adoption and use of internet services by these adults to enable them to work from home (WFH), access e-health and e-learning services.

HIGHLIGHTS

- ① The digital divide is a stark reality in South Africa, despite more than half of adults in the country now having internet access
- ① With Wi-Fi networks available and accessed in certain areas, the majority of people in deep rural areas and some townships find it difficult to access the internet despite its universal access.
- ① Adults in Unit B with broadband connection in the dwelling, access the internet using their smartphones and computers.
- ① Out of 20 participants, only four had home based internet access, 16 out of 20 participants (80% of sample) moaned about expensive data - they cannot afford data because it is too expensive.
- ① Demand for internet services is high among adults of this township but that demand is not supported by economic power to pay for access to and use of advanced internet services.
- ① Digital technology and its attendant culture contribute to the exacerbation of social inequalities, because not everyone has equal access to such technology and even among those who do, not everyone is equally competent in using it. Unequal access or unequal competence thus create classes of information haves and information have-nots.

Keywords: Internet, digital divide, digital illiteracy, data prices

This study was conducted by the researcher, to assess the demands for internet services by middle-aged adults in

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Mankweng township in Limpopo Province of South Africa. "The use of ICT is rapidly growing in South Africa; however, some citizens are not part of the information society" (Chisango, 2012:3). These citizens are rural inhabitants who lag behind in terms of ICT access especially during the Covid-19 pandemic era. This is because of factors such as low levels of ICT skills and low household incomes (Fourie, 2010). Moreover, most people use ICT for voice communication and text messaging, thus the limited use of the internet is attributed to high mobile data prices (*ibid.*). "Access to the internet is still a luxury for many South Africans. While the country may have access to many mobile network operators, all competing with one another, the cost of data bundles is still extremely high compared to the country's average household income" (Morris, *et al.* 2001:150). The South African Laws and policies governing and guiding technology access deployment to communities is the Telecommunications Act No. 103 (1996), and the National Integrated ICT Policy White Paper (2016) which promote universal access to technology infrastructure and services to all South Africans, despite area of domicile (rural or urban). Against the background of these policies, the South African government and its communications agencies has a duty to implement these policies and deliver the technology infrastructure and services, to areas where these services are absent. This government should implement the policies that it has written on paper in documents. Hudson (2011) states that universal access (and universal service) to technology infrastructure and services, should be deployed by governments in order to provide digital diversity to communities and citizens. Additionally, Hudson (*ibid.*) advises that if government fail to offer these ICT services to communities on their own, the government should invite the private sector to assist them in rolling out projects aimed at national ICT deployment.

Availability of ICT services vary in South Africa and, these are accessed with ease in prosperous and economically powerful provinces such as the Western Cape and Gauteng Provinces (Lesame, 2013; Chisango, 2020; Mfuphi, 2020). In some provinces such as the Eastern Cape and Limpopo, ICT is not easily accessible, especially in rural areas. The World Wide Worx Report

(2017) postulates that the South African internet access penetration reached 40% in 2017, thus reaching 21 million people and is anticipated to increase to 22.5 million (*ibid.*). According to Statistics South Africa (Statistics South Africa, 2018), the South African populace reached 55, 9 million in June 2016, and in 2017, the country reached a 40 % internet penetration. The Statistics South Africa (2018) report discloses that the sole most common use of the internet amongst SA adults is communication, used by a third (31%), followed by social media at 24,9%, information at 23,7% and entertainment at 22%. Professionals utilize the internet to communicate with colleagues, unemployed people surf the internet to find work opportunities while students go online for research purposes.

Literature review and the digital divide theory

South African is characterised by a chronic digital divide that increases over the years. The digital divide is the gap that exists between the information "haves" and the information "have nots" (Srinuan & Bohlin, 2011:33). However, according to Rooksby *et al.* (2002:97), "the digital divide is not limited to access to the technical infrastructure, but also to social infrastructure that supports information and communication technology (ICT)". South Africans should improve access to ICT by millions of South Africans who have no ICT access, motivate citizens to make use of ICT for self-advancement, provide citizens with ICT education and skills in several ICT centres, so that the digital divide is eliminated. "The three major cities, Durban, Cape Town and Johannesburg are highly wired, whereas the small towns and rural areas do not have well developed ICT infrastructure, making it difficult for most people to access ICT" (Chisango, 2012:57). Other factors, which widen the digital divide, include prohibitive costs of ICT services and low levels of ICT skills among some people.

METHODOLOGY

This is a qualitative study on the assessment of demand for internet services by middle-aged adults in Mankweng Township. The qualitative research paradigm is defined by Punch (2005:27) as a set of assumptions about

the social world and about what constitutes proper techniques and topics for enquiry.

Research design

Du Plooy (2009) defines research design as a researchers' plan of action that will give guidance throughout the research, indicating who or *what* is involved, and where, and when the study takes place. The research design was exploratory in order to evaluate *what* internet services were used by the middle-aged persons and for *what* purposes.

METHOD

Berg (1998:57) states that an interview is a conversation with the drive to collect information. Interviews were conducted to collect relevant information from respondents at residential Units B and F in Mankweng. The researcher selected two units out of eight units in Mankweng to reduce the costs of conducting the study and enable easy management of data collection processes.

DATA ANALYSIS

Braun and Clarke (2006; 2019) state that data analysis is a process of remodelling, refining and creation of meaning out of a primary or secondary data. The researcher used thematic analysis to analyse collected data. Thematic analysis, according to Babbie and Mouton (2010:492), includes "deciding how many concepts to code for" and "deciding whether to code for the existence or frequency of a concept". In this study, the researcher arranged data into themes related to sub-questions for analysing.

RESULTS AND DISCUSSION

Respondent variables

Ten female participants were interviewed in Mankweng and 10 males were interviewed in Mankweng adding up to 20 participants in total. The findings indicated that 10 out of 20 participants were female (i.e. 50% of the sample) and 10 out of 20 participants were male (i.e. 50% of the sample). The results about the profile of the participants by age and gender revealed that four out of 20 participants (20% of the sample) are females between

the ages 45-50 and that two out of 20 participants (10% of the sample) are males between the ages 45-50. The results revealed that one out of 20 participants (5% of the sample) were females between the ages 51-55 and that two out of 20 participants (10% of the sample) were males aged between 51 and 55 years. Two out of 20 participants (10% of the sample) were females between the ages 56-60 and out of 20 participants, there was no male aged between 56 -60 that was interviewed. Lastly, the results revealed that three out of 20 participants (15% of the sample) were females aged between 61 and 65 years, and six out of 20 participants (30% of the sample) were males between the ages 61 and 65 years old. The results indicated that 70% of the adults were employed, 10% were financially supported by pensions, 15% were unemployed and five% of them were self-employed through operating small businesses.

Thematic analysis of responses gained from interviews

Demand for internet services by middle-aged adults in Mankweng township during the Covid-19 pandemic era

Demand for the internet is becoming more of a priority than before the advent of the Covid-19 pandemic. Thus, with the current status quo where lockdown measures had been implemented, 40% of the adults were working from home (WFH) using online platforms such as Zoom, Google and e-mail.

Price as a determinant of demand for internet services

The data indicated that there is a shift from a traditional way of living to digital ways of working and living. The students registered at the University of Limpopo who reside at Mankweng, use digital technology platforms such as Google Meet, Zoom, mobile phones (WhatsApp) and e-mail, to connect with lecturers and study online; middle-aged adults with some form of education and are technologically savvy get work done virtually. However, internet connection requires access to finance or money. Thus without money, some, especially the unemployed, are unable to access the internet like mobile data, broadband or wireless connection and Wi-Fi routers to seek work. Therefore, it is not possible

for this group of unemployed local persons to access internet services. Some respondents in Unit F carped about expensive data prices. The prices paid by users for Wi-Fi range from R560 per month (e.g. for the company WiLink Internet Solutions of Dark Fibre Africa) to R668 per month (process charged by Telkom national service provider). The middle-aged adults in Unit F struggle immensely with internet connection because most internet services providers available in big cities such as Johannesburg and Cape Town, are not available in local small townships. However, the national operator Telkom is available in most parts of the country, including Mankweng township. Mobile phone operators such as Vodacom and Mobile Telephone Networks (MTN) also offer data and Wi-Fi services at competitive prices but one has to afford these prices in order to use such digital services.

Income as a determinant for internet services demand

The digital divide is a gap that exists between the information “haves” and the information “have nots” or between those with access to information and communication technology and those without access. The middle-aged adults in Mankweng Unit F were hit hard by the digital divide phenomenon because a small number of them in that area are working. Regardless of the kind of job they did, they still could not afford to pay for Wi-Fi or buy enough data because they cannot afford it. Therefore, there this economic barrier is a result of low income received per month by this group of adults.

Consumer preference as a determinant for internet demand

There is a lot of content that is available online, and different applications that almost everyone utilize for communication. Social networks such as Facebook, Twitter, Instagram, YouTube and WhatsApp were in demand. There was more demand for and use of WhatsApp among the respondents than there was demand for Twitter and Facebook. With reference to the information collected in Mankweng, most of the middle-aged adults preferred WhatsApp to communicate because it was cheap, convenient and fast for them to use. Consumers of internet services differ in terms of

preferences, adults are different and their preferences differ. The findings of this study indicated that some working class adults particularly in Unit B preferred to do shopping online, whereas those that resided in Unit F did not even bother to shop online and or send emails because the majority of those who stayed in Unit F that formed part of the study were unemployed. Their status of being unemployed did not require them to send countless emails to their colleagues or students or any other person or organization. In this study, particularly in Unit F, some adults did not use the internet at all and this meant that there was no demand for the internet from this group. These adults saw no use to access internet services – these persons (15% of the sample) were less educated and had no high school and no university education.

Demand for internet services and low literacy levels

This theme sought to bring to light the level of internet access by middle-aged adults in Mankweng. From the interviews conducted, it emerged that most adults in Unit B were aware of the internet services and thus had knowledge of the services. However, some adults in Unit F were not aware of the internet services, the knowledge and use was limited because they had low literacy levels.

Internet services used by middle aged adults in Mankweng

The results revealed that most adults in Mankweng in both Units B and F used WhatsApp as a main form or platform of communication. They highlighted that they used WhatsApp mostly to communicate with loved ones and some said that they used WhatsApp for work purposes or work related matters. According to the participants, WhatsApp was the cheapest, fast, easily accessible social network. Some adults were able to access WhatsApp mainly because of Cell C WhatsApp bundles. Cell C, the mobile operator, bundles were regarded as cheap and lasted longer; 70% of the adults used WhatsApp as the main form of communication as compared to Twitter (used by 10% of the adults) and Facebook (used by 5% of the sample). The results also revealed that 25% of the adults engaged in online shop shopping and 30% of the adults used online banking

facilities and services. Adults who downloaded content represented 20% of the sample and those who used email represented 20% of the sample.

CONCLUSION

This article concludes that the some middle-aged community members at Mankweng have access to digital technology while other persons, the illiterate and unemployed, have no access to digital technology and communication platforms such as the internet. These authors conclude that the government, with assistance from the private sector, should assist the technology-less with access to and use of digital technology by delivering the technology to the community and educating those digitally illiterate to gain digital knowledge and skills at available public education institutions or newly established ICT community centres. Government officials should have the moral and ethical motivation to deploy these ICT services to local communities because their ICT policies state that they will deliver these services to people. In this regard, Lee and Brown, in Taylor and Schejter (2013) state that while theoretical reasoning for quantification of connectivity raises methodological challenges, the social justification for government policy promoting access to information and communication technology involves moral and ethical considerations.

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