



Digital distance and inequality in a pandemic: Online data collection challenges at a Municipality in South Africa

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Abstract

Through the ‘Experience, Deconstruction, Implementation’ reflective framework, this paper examines the complexities of data collection for a South African study on gendered perceptions and expectations of internal service quality within a municipality during the COVID-19 pandemic. The framework provides a non-prescriptive approach for critically analysing challenges, fostering reflexivity and empowering researchers to adapt methods to evolving contexts. This paper highlights key challenges, including navigating digital inequalities, managing virtual data collection, and addressing researcher positionality in an African context. The COVID-19 pandemic introduced new and exacerbated existing obstacles, such as limited internet access and technological literacy among participants. These challenges necessitated innovative strategies, including the redesign of digital tools and collaboration with organisational Information Technology departments to overcome technical barriers. Despite these hurdles, the study emphasizes the importance of reflexivity, adaptability, and ethical flexibility in research design, contributing to methodological developments in crisis-driven research. The findings offer actionable recommendations for future research, such as employing hybrid data collection methods, engaging stakeholders early, and designing gender-responsive tools to address digital inequities. By addressing these dynamics, this paper enhances the authenticity and relevance of research in the Global South and informs strategies to improve inclusivity in diverse, resource-constrained contexts.

Keywords: Internal Service Quality; Data Collection Challenges; Digital Distance; Digital Inequality; EDI Model; Researcher Positionality; Crisis-Driven Research

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Cite this article as: Nhari, A.R. and Nzimakwe, T.I. (2025), “Digital distance and inequality in a pandemic: Online data collection challenges at a Municipality in South Africa”, *International Journal of Development and Sustainability*, Vol. 14 No. 7, pp. 498-513.

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1. Introduction

Reflection has increasingly become a fundamental component in the development of emotional intelligence for academic researchers and practitioners. This paper constitutes a reflective account of the first author's doctoral experiences during data collection, on investigating the gendered internal service quality expectations and perceptions of customer contact employees at a municipality in KwaZulu Natal province in South Africa. The objective of the study was to determine which of the two major gender classifications (male and female) was/is more likely to engage in discretionary behaviour (exhibit organisational citizenship behaviour). Gender was employed as the anchoring comparative dimension because of its importance in African contexts, and is increasingly becoming the case world over. In addition, it has traditionally shaped and influenced social roles, power dynamics, access to resources, and the overall well-being of individuals. In African societies, gender roles, expectations, and norms have been historically constructed and continue to play a significant role in shaping the social fabric of communities. The fieldwork was carried out at the height of the Coronavirus (COVID-19) pandemic between and from the months of July to September, 2020. Due to the online strategy adopted for data collection, largely motivated by the social distancing restrictions related to the pandemic, the main author received mentorship from the second author, on how to best navigate challenges -online- through the -now very popular- Zoom platform. Furthermore, Ms Teams was used to communicate with the Municipalities Research and Information Technology (IT) departments throughout the process. This was particularly necessary as the first and second authors did not have the advantage of 'insider' status with the study population.

The recent COVID-19 worldwide pandemic has further motivated practitioner's world-over, to reflectively and critically consider how research is done. Curriculum writers in various fields/disciplines have imbedded the requirement for reflection as a means to operationalise the foregrounding idea that it is an integral part of the learning process. This notion has formed the justification for the approach/methodology of this paper. The COVID-19 global pandemic significantly reshaped the organisational landscape, imposing new constraints and exigencies upon customer contact employees. These exigencies included remote work arrangements, different service delivery channels, and heightened health and safety concerns. Consequently, comprehending how customer contact employees perceive the internal service quality they receive, as well as their expectations, becomes vital in deciphering the linkages between the internal service environment and external service outcomes, such as customer satisfaction and loyalty.

To the best of our knowledge, there are no studies within the public management domain conducted with the aim of establishing the gendered perceptions and expectations of customer contact employees of internal service quality during a global pandemic such as COVID-19. This forms our pivoting argument for the necessity of this paper. In addition, the paucity of reflective narratives in the field is notable. The study population was of unique importance and continues as such, because at the crux of the investigation was the undergirding recognition that customer contact employees are internal customers within an organisation. The internal service quality they perceive and expect, fundamentally shapes their engagement, motivation, and subsequent quality of services delivered to external customers. Therefore, understanding and managing internal service quality within the specific context of a global pandemic becomes paramount, as it directly influences the organisation's ability to effectively navigate the challenges posed by such crises.

Our collaboration with the eThekweni Municipality in South Africa reveals the need for flexibility and adaptability on the part of researchers and higher education institutions when conducting studies with well-established public enterprises, particularly those with their own research units. Reflecting on our interactions with eThekweni Municipality, we challenge many existing methodological assumptions in the Public Administration domain and re-examine certain issues. Specifically, the paper seeks to address the question regarding challenges and limitations of using online data collection methods in marginalised urban populations in the Global South; How gender and digital inequalities impact the effectiveness of online research methodologies in such contexts; and what strategies researchers can use to adapt to unforeseen challenges in fieldwork, particularly in the context of a global crisis like the COVID-19 pandemic. This paper contributes to the expanding body of literature on fieldwork experiences in Public Administration by exploring challenges of online data collection during a global pandemic. Conducting fieldwork with marginalised urban populations in the Global South is more complex than what most methodological literature prescribes (Bandaiko and Arku, 2023), as it is often constructed in Western contexts. It appears to overlook issues of gender inequality, where women in urban communities' face compounded challenges, including unequal access to resources such as technology and limited decision-making power over resource use, perpetuating cycles of inequality.

2. Fieldwork complexities

The first hurdle in the fieldwork was access to the research population, members of which had been instructed to work from home. This challenge was exacerbated by the 2-week cyclical routine for work attendance, implemented by the Municipality during the national 'lockdown'. This arrangement meant that employees negatively impacted by digital inequalities and lack of access to Wi-Fi or data only had an opportunity to respond to the questionnaire during their workweek. This challenge was addressed by working closely with the Municipalities' internal Researcher and the IT department who had access to the study population. This necessitated a series of meetings between the authors and the Municipality Research office, as well as the IT department, in order to align issues of ethics with data collection and data handling. The unforeseen pandemic attests to the notion that field realities tend to differ from what academics and practitioners often anticipate when developing methodological guidelines. The field context changed drastically – notably due to the COVID-19 pandemic-, posing unique socio-economic, cultural and political challenges that often enable or restrict uninhibited research processes. It became for us, an authentic exploration of uncharted regions, presenting complexities that required dynamism, flexibility and constant adaptability on our part. One of our key reflective rationalisations is that ethical decisions and practices when in the field are variable, requiring flexibility and adaptability, and are additionally fashioned by contextual circumstances which subsequently suggests that provisions for conducting fieldwork cannot be made by universal rules (Shaw, 2008) made by individuals or committees far displaced, in theory or practice, from the practical everyday realities of research, and in particular, the data collection process. As a result, we agree with the notion that current literature on field methods often overlooks the learning opportunities in the Global South as they pertain to fieldwork and as experienced by Southern researchers (Giwa, 2015; Bandaiko and Arku, 2023). Therefore, we are confident that lessons from our online data collection experiences during the pandemic will resonate with other researchers, particularly in areas with similar demographic, socio-economic, and technological characteristics.

Despite the undefined yet foreseen challenges, due to health risks and logistical complications, the authors committed to proceeding with the fieldwork. This decision was motivated by a careful assessment of several factors that aligned with the researcher's objectives and the adaptability of the research process to an online format. The pivotal points of consideration included the adaptability of the INTSERVQUAL technology to an online format. Its' easy adaptation was established in one of the meetings with the Municipality's' IT and Research offices, where the cumbersome task of going through each question on the instrument was done successfully with the advantage of the 'screensharing' function on MS Teams. Stakeholders had a visual appreciation of the instrument, which provided the researchers an opportunity to ensure that there was no deviation from that which was approved by the institution and had been tested for reliability and validity. The adaptation enabled the researcher to seamlessly transition onto the Municipalities framework, allowing the virtual/online engagement with the study population, ensuring the continuity of the study's data collection process.

Another catalytic agent, motivating the decision to continue with the study was that the eThekweni Municipality like other organisations world over, cognisant of the Fourth Industrial revolution (4IR) had begun migrating its operations online. This formal transition suggested and demonstrated the organisation's readiness and assumed ability to conduct activities virtually, including remote work for employees and by inference, and the successful execution of the suggested online study. Furthermore, the researcher's academic institution, recognising the challenges posed by the pandemic, urged researchers and practitioners to continue activities to the extent possible. This encouragement from the institution provided the necessary validation and support for the researcher's decision to proceed with fieldwork. Moreover, under the prevailing circumstances (COVID-19 pandemic), documenting the research process gained significant importance. We rationalised that the unique circumstances surrounding the pandemic, necessitated the collection of data and insights that could contribute to future comparative studies and shed light on the implications of crises on organisational behaviour and management practices. In addition, the current conditions presented a valuable opportunity to elucidate the importance of internal service quality perceptions and expectations among customer contact employees during the epoch of a global pandemic; and capture their perceptions and expectations, which are crucial aspects of periodic employee research.

Moreover, neglecting to gather this data under the unique circumstances would result in the loss of invaluable information that could be used for comparative analysis and inform decision-making processes. Another compelling motivator was that the prevailing academic literature predominantly focused on clinical research during the pandemic, with limited contributions from the public administration/management sector. By proceeding with fieldwork, the researchers aimed to bridge this disciplinary gap and provide insights specific to the organisation's context, contributing to a more comprehensive understanding of the challenges faced in the sector. Last but not least, the first author expressed a sense of urgency to complete the study, regardless of the prevailing conditions, as the data was to be used in her PHD work. The time constraint was driven by various factors, such as impending institutional deadlines and the need to address timely research gaps identified in collaboration with the Municipality. Despite the challenges posed by the pandemic, the researcher was determined to conclude the study within the allotted timeframe. In summary, the decision to proceed with fieldwork during the COVID-19 pandemic was based on a careful assessment of multiple compounding factors. The adaptability of the data collection instrument, the organisation's online migration of activities, institutional support, the need to document the research process, as well as the value of capturing employee perceptions were among the key considerations.

Besides the anticipated challenges with web-based questionnaires, additional issues arose. The examination of internet-based communities has led to a heightened utilisation of online surveys, presenting researchers with novel challenges in applying traditional survey research methods to the investigation of online trends, behaviour, and internet use (Wright, 2005). The creation and execution of online surveys are now less time-consuming, and a developer does not require familiarity with web authoring programs, HTML code, or scripting programs to be successful (Wright, 2005). For market-related research and scientific studies, online surveys continue to be a faster way of collecting data compared to other survey methods. However, it is equally prudent to consider their drawbacks and disadvantages. Although several challenges cited are characteristic of traditional survey research, some are unique to the online methodology and its context.

Due to the decreasing cost of computer hardware and software and the popularity of the internet, more populations in the Global South, including previously unreached segments of society, are using the internet for communication and information. The COVID-19 pandemic acted as a catalyst for technological adoption in societies previously trailing behind in terms of advancement. Simultaneously, there was an unparalleled surge in online communication, entertainment, and shopping (Donthu and Gustafsson, 2020). Many organizations worldwide relocated their business operations online, offering services and information to external customers, while also recognizing their employees as users of such technology. This shift presented opportunities for researchers to access a diversity of populations affiliated with their study. We recognized this as an opportunity for engagement on various online platforms.

3. Researchers Positionality

Fieldwork, as a central component of African academic research, demands heightened attention to researcher positionality, due to the rich and diverse nature of the culture. Positionality dually describes an individual's epistemological perspective and the stance they assume regarding a research endeavour and its social and political milieu (Foote and Bartell, 2011; Savin-Baden and Major, 2023). The individual's world view or contextual influences are regarding ontological assumptions (an individual's convictions regarding the essence of social reality and their discernment of what can be known about the world), epistemological assumptions (an individual's foundational beliefs guiding knowledge acquisition, truth, and subject-object relationships) and assumptions about human nature and agency (an individual's assumptions about the way we interact and relate to and with our environment) (Sikes, 2004; Bahari, 2010; Scotland, 2012 and Grix, 2018). The significance of researcher positionality in academic research within the African context, with particular attention to fieldwork, cannot be overstated. We had to be aware of our subjective identity, social location, and inherent biases shaping our perspectives, interactions, and interpretations of data. The acknowledgement and critical examination of our positionality was a crucial step towards conducting rigorous and ethical research which honours the diverse and complex realities of African societies. African societies are characterised by a rich tapestry of cultures, histories, and power dynamics; therefore, researcher positionality plays a pivotal role in shaping the knowledge production process. We were cognisant of our own position within a framework of colonialism, neo-colonialism, and exploitation, resulting in a legacy of power imbalances, cultural marginalisation, and epistemic injustices, and were sensitive to the potential reinforcement or challenging of existing power dynamics through our research endeavours (Little, 2017 and Sharma, 2019) particularly in the context and sensitivity of what our study was investigating.

The researchers' positions of privilege in the study influenced the rapport established and access to information within the Municipality. Furthermore, because researcher positionality is intimately connected to the production of knowledge that is relevant, authentic, and transformative, acknowledging our own positionalities, we managed to actively challenge and disrupt traditional research paradigms that have historically excluded or marginalised African voices and possible knowledge systems. This realisation facilitated the inclusion of multiple perspectives, alternative ways of knowing, and local epistemologies that empower African communities and contribute to decolonising knowledge production. Through reflexive engagement with our positionality, we endeavour to co-create knowledge that addresses societal challenges, fosters social justice, and empowers African communities to reclaim agency over their narratives and futures within organisations and society as a whole.

As an African female researcher operating within the African context, the first author possessed unique advantages which significantly enrich her academic pursuits and contribute to the advancement of knowledge. The advantage of the first author stems from the intersectionality of her identity, combining the researchers' African heritage, gender, and scholarly position, hence providing the advantage of multiple positionalities (Zhao, 2017) and as a result varied complexity as well. This proved to be quite advantageous as the in-house Municipality Researcher and IT personnel were female. Though considered an outsider due to national heritage, the other factors had an overriding effect. This was balanced by the second author being a male and of South African nationality. During the initial engagement with the Research and IT offices at eThekweni Municipality our positionality was fluid, oscillating between insider and outsider status. The fluidity of our positionality allowed us to engage with the Researcher and IT personnel at the eThekweni Municipality first, and then through the research instrument, the customer contact employees, and gain invaluable insights into their experience of internal service quality. It additionally strengthened our ability to recognise and acknowledge the limitations in our understanding and the potential impact of our own biases and preconceptions of our research.

4. Context and methodology

Public service organisations aspire to provide satisfactory services to citizens/consumers by meeting and surpassing their expectations. However, this is hardly achieved. The institutions heavily depend on their employees to deliver exceptional services and have gradually recognised the pivotal role played by their workforce (Luu, 2018). Furthermore, organisations have acknowledged the significance of discretionary behaviour in ensuring the satisfaction of end users (Nwanzu, 2017 and Deery et al., 2017). Gender apparent differences in human behaviour have been recorded in a number of studies. For instance, disparities in organisational citizenship behaviours and job satisfaction have been linked to varying experiences of workplace support and recognition (Bell and Menguc, 2002; Knies and Leisink, 2014). Central to the decision to conduct the study was the paucity of literature on the subject within public institutions in South Africa. National policies and organisational regulations pertaining to employment equity and affirmative action has facilitated the increased representation of women in the workforce, particularly in roles that were traditionally male-dominated. Therefore, an organisation's negligence regarding the investigation of gendered internal service quality perceptual and expectation differences can potentially lead to losses in revenue, particularly in an era where women are increasingly being found in previously male dominated work environments.

Clarke's (2021) framework has been used in this paper as it serves as non-prescriptive scaffolding to support reflective writing for academic purposes. It is a new framework for reflective writing, designed by Clarke (2021), specifically for academic intent. The 'Experience, Deconstruction, Implementation' (EDI) framework (Clarke, 2021) addresses the gaps in pedagogical practices of teaching reflection. Clarke (2021) contends that the existing gaps create a significant challenge for scholars to engage in reflection, given that the well-established models and frameworks in academic literature were not originally intended for the purpose of reflective writing in academia. We concur that it presents scholars with a more suitable model of reflection, tailored for academic reflective writing, as stated by Clarke (2021), while facilitating the demonstration of criticality within the writing.

The insights presented in this paper are based on the fieldwork experiences of first author during her doctoral study, which investigated the gendered internal service quality perceptions and expectations of customer contact employees, with the aim to determine which of the two genders is more likely to exhibit citizenship behaviour. The study was conducted in eThekweni Metropolitan Municipality, South Africa. eThekweni is located on the east coast of South Africa in the Province of KwaZulu-Natal. The Municipality spans an area of approximately 2297km² and is home to some 3.5 million people. It consists of a diverse society which faces various social, economic, environmental and governance challenges. As a result, it strives to address these challenges, which means meeting the needs of a dynamic and an ever-increasing population. Poor service delivery has resulted in citizens/residents resorting to violent behaviour that has escalated into the destruction of public property. This behaviour has been documented as far back as the mid-1990s', just after South Africa got its first democratically elected government. The African National Congress (ANC) led government was met with protest action related to a perceived lack of basic service delivery (Breakfast, Bradshaw and Nomarwayi, 2019).

In addition, since 2004, numerous communities have resorted to acts of violence, resulting in the vandalism of educational institutions, libraries, and residences belonging to underperforming local government council members (Breakfast et al., 2019). Violent service delivery protests are reported to have increased between 2009 and 2010 (Breakfast et al., 2019). A more recent case is the burning of one of the eThekweni Municipality Sizakala Centres, and six state vehicles, during a service delivery protest in an informal settlement in Lamontville, Durban. This incident took place in August of 2020, while the COVID-19 pandemic was at its peak.

4.1. Justification for online surveys

Online surveys were selected as the primary data collection tool due to their efficiency in reaching dispersed and diverse participants, particularly during the COVID-19 pandemic when face-to-face methods were impractical. Studies have demonstrated that online surveys are effective in collecting data from large populations quickly and affordably while minimising logistical challenges (Wright, 2005). In addition, the increased adoption of internet technologies in developing regions, catalysed by the pandemic, make online surveys a viable option for engaging participants who might otherwise be inaccessible (Donthu and Gustafsson, 2020). However, the study acknowledged and accounted for the challenges inherent to online surveys, such as unequal access to technology, varying levels of digital literacy, and potential biases in response rates due to the digital divide (Gillwald, 2017). The decision to use online surveys aligns with similar research conducted

in public administration and service quality, which highlights the benefits of web-based methodologies in terms of cost, speed, and geographic reach (Evans and Mathur, 2005).

4.2. Sampling and participant demographics

The study adopted a purposive sampling strategy to ensure representation of customer contact employees from various Sizakala Centres in the eThekweni Municipality. Purposive sampling was deemed appropriate given the specific focus on employees directly involved in service delivery. The target population included employees from diverse socio-economic and cultural backgrounds, with a deliberate effort to include participants from both genders to investigate potential differences in service quality perceptions and expectations. The survey was distributed to employees via an online platform, with initial and subsequent contact facilitated by the Municipality's Research Unit. Participant demographics included gender, with 50% male and 50% female representation to ensure balance; participants age ranging from 25 to 55 years, with the majority falling between 30 and 45 years; most participants holding at least a diploma; and employees with varying levels of experience, ranging from less than 5 years to over 15 years in the institution.

5. Fieldwork experiences and lessons learned

Collecting data online from customer contact employees at eThekweni Municipality Sizakala Centres in South Africa yielded various insights, most of which were not anticipated as they were not the main objective of the study. Some of the key insights include challenges associated with gaining access in unfamiliar research contexts, managing complex ethical dilemmas, and navigating digital distance and inequality. These interrelated issues required dynamism in relation to adaptability, creativity and flexibility on the part of the researchers.

5.1. Access in unfamiliar contexts

Acquiring approval from the University's Ethics Review boards did not guarantee unbridled access due to pre-existing organisational and local dynamics, which were later negotiated in the field. We quickly discovered that access involved more than just acquiring gatekeeper approval, rather it involved further negotiation to gain access to the study site and research participants (Thummapol et al., 2019). For this study, it was truly a complex and multi-layered process which began by meeting with the Head of the Sizakala Centres to discuss the originality and value of the research study to the Sizakala Centres in the eThekweni Municipality. Of particular interest to the Head was the possibility of operationalising the findings of the study, which was established in a series of meetings. The Head additionally envisioned that this process would initiate and encourage more scientifically based research within the Municipality. The success of the study hinged on the ability of researchers to negotiate for access at all levels (Matamanda, 2022), which was done successfully.

5.2. Access to the study population

After migrating the survey online, the authors encountered a few more challenges. Researchers undertaking online research frequently encounter challenges associated with sampling (Wright, 2005; Howard, Rainie, and

Jones, 2001). The Sizakala Centres' Researcher provided a mailing list which included the entire population of potential study participants. The first authors as outsiders, did not have an organisational/Municipality email address, which would have facilitated the seamless transmission of the survey link to research participants, without encountering firewall restrictions. It was established in consultation with the Sizakala Centres' Researcher, that despite having generated the survey link, the first author would not have been able to distribute it to the intended recipients as emails would have been blocked by firewalls - a network security system that oversees and regulates inbound and outbound network traffic, guided by pre-established security rules - characteristically establishing a barricade between a trusted and an untrusted network.

In response to this challenge, the researcher worked closely with the Sizakala Centres' Researcher as well as the IT department. Through the cooperation of the IT personnel, the data collection instrument was redesigned on official Municipality software. To ensure that the deviation did not affect the questions on the new instrument and the design replicated the original, a series of meetings were held on MS Teams, where design elements were viewed and discussed. After a number of meetings collaborating on the online presentation, a final design was agreed upon, as reflecting the values of the organisation while keeping within the ethical guidelines of the University of Kwa-Zulu Natal.

6. Digital divide

Digital divide refers to the gap between those who have access to ICTs and those who do not. ICTs are information and communication technologies that drive access to knowledge (Education connection, 2023); The divide in this context, is an uneven distribution in the access to, use of, or impact of ICT between distinct groups, defining a gap in terms of access to and usage of information and communication technology. The people groups may be demarcated based on geographical, social, or geopolitical measures. This additionally includes, but is not limited to access to computers, internet use, and information literacy. Simply put, it is a question of having or not having access. Education Connection (2023) presents data supporting the assertion of the existence of a gap-along racial, economic, ethnic, and education lines, between those who have access to the latest information technologies and those who do not. The digital divide manifests prominently within low-income groups and communities, making it a localized concern as well as a prevalent challenge faced by underdeveloped nations worldwide. Moreover, a global digital divide persists between genders and users. Across all regions, a higher proportion of men (58%) utilise the internet compared to women. While the gender gap is relatively narrow in developed countries, it significantly widens in developing nations (Education Connection, 2023).

Due to the COVID-19 related national lockdown, employees who would have normally had access to the internet, Wi-Fi and subsequently their emails at work, did not have this access. The high cost of ICT for communities in the Global South, its adoption and personal or private utilisation away from work is quite uneven for low income earners. A considerable number of the respondents consisted of millennials, indicating a potential keen interest in and emphasis on information technology for this demographic group; who can often procure the technology but cannot afford sustained Internet access. It was equally reasonable at the time (during the pandemic related lockdown) to infer that the changing employment landscape had affected household spending habits, subsequently influencing the allocation of funds towards what were considered to be luxuries, such as appropriate technology, Wi-Fi access and data expenses.

The digital divide posed a real challenge as customer contact employees suggested that they could not access their work e-mail accounts while at home, which negatively affected the response rate in the study. In the Information Age, the lack of access to information and information and ICT is a significant economic and social disadvantage. South Africa is faced with a number of developmental challenges making it one of the more complex societies in the world when it comes to digitisation (Schlemmer and Møller, 1997). The country is polarised by various inequalities and differences in the level of development between different sectors (Sharma, 2019). These obstacles result in inequalities in access to information and ICT. Of particular significance in the current climate are the inequalities exacerbated by the digital divide. In South Africa, about 20 to 22 million people use a smartphone, which accounts for about one third of the country's population (Taylor, 2023). the researchers were confident that the survey would reach the intended population. Nevertheless, the question of bandwidth and skills would be indicated in the response rate, indicating potential inequalities.

6.1. Gender digital divide

The first author, being a female of African descent, had an additional interest in exploring the potential correlation between the gender variable and the digital divide, as manifested through the response rate observed in the study. In the context of the COVID-19 pandemic, where the entire world had to depend on ICT in order to keep, organisations and governments running, usage emerges as a pertinent and significant subject. The coping capabilities and the adaptability of women to the new status quo- the amplified use of ICT within organisations- is an area worth exploring. Another area of interest is the question of equal access to technology; Deprived of equal access to technology and the internet, women are not able to equally participate in the dynamic digital societies.

Plan International (2020) suggests that in many instances, girls and women encounter relatively limited access to technology and internet connectivity in comparison to their male counterparts. This is apparently the case in developing countries, where girls and women commonly encounter challenges with affording technology and internet access. Their research has additionally demonstrated that stereotypes associating technology with, and for boys, as well as fear of discrimination hinder girls from using digital tools (Plan International, 2020). The world's least developed countries are leading in the gender digital divide in access to the internet, at 32.9%; and the internet gap has been reported to be the largest in Africa (Plan International, 2020).

According to Kwami (2020), the digital gender gaps in Africa are not only persistent but in many cases worsening, making it the only continent with such a trend since 2013. This remains the reality despite the continent recording the highest growth in internet penetration across the globe. Additionally, the report highlights that the proportion of women using the internet in Africa is a quarter less than the proportion of men using the internet on the same continent. This is disquieting particularly in light of the COVID-19 pandemic and the lessons it has facilitated, catalysing digital technologies to become the lifeline of organisations and public institutions. A crisis such as the COVID-19 pandemic may in fact bring to light the extent of, and also reinforce the digital gender divide. Women risk being left behind as the world ushers in the Fourth Industrial Revolution (4IR), characterised by new and dynamic technology.

7. Digital inequalities

Digital inequality concerns emanate, partly from the popular notion that unequal access to digital technologies aligns closely with enduring forms of social inequality, such as disparities associated with income, education, age, gender, and geography (Courtois and Verdegem, 2014; Hargittai, 2002; Horrigan, 2014; Lopez, Gonzalez-Barrera and Patten, 2013). Individuals from Least Developed Countries (LDCs) often migrate to other countries, including those in the Global South, in search of better economic opportunities, improved living conditions, and political stability. Migration from LDCs to other countries puts pressure on the resources and infrastructure of the destination countries in the Global South like South Africa. This further exacerbates issues of inequality, which are akin to a catalogue of factors affecting populations in the Global South. Even where enabling environments have been created for the extension of services, or regulatory interventions have driven prices down, the limited demand-side data available in the Global South illustrates how the socially and economically marginalised- particularly those at the intersection of class, gender, race or ethnicity, with generally lower education, employment and income- are unable to harness the benefits of the internet (Gillwald, 2017). Hence the authors realised that survey participation would not be a top priority for members of these communities and by inference, for the study population, adversely affecting the response rate for the study.

Contemporary scholars concerned about digital inequality persist in their concern with traditional questions related to technology access and adoption; Unaffordability is one of the main barriers to Internet use, while access to the Internet is costlier in LDCs than anywhere else in the world (International Telecommunications Union, 2023). However, there is a shift in the literature toward investigating barriers to meaningful technology engagement (Bag, Sahu and Sahu, 2020), which befits the prevailing circumstances. Individuals can achieve meaningful digital connectivity when they possess the necessary technical skills to effectively engage with emerging communication technologies and use information resources.

Although most Africans remain disconnected from the Internet, and access to broadband services continues to be a central policy issue, the increased availability of broadband services alone will not reduce digital inequality on the continent. While the provision of access to the Internet remains a key public policy issue — as a necessary condition of digital participation in the economy and society — it is insufficient to meet the growing demand. Even where networks and services are available in the Global South, a significant portion of the population are unable to access these services affordably or use them optimally to enhance their social and economic well-being, unlike in more mature economies, where levels of human development and equality are higher. Even where enabling environments have been created for the extension of services, or where regulatory interventions have driven prices down, the limited demand-side data available in Africa illustrates how the socially and economically marginalised are unable to harness the benefits of the Internet. These inequalities were experienced during the fieldwork when it was apparent that customer-contact employees depend on the organisation to provide internet access and the technology to access the digital domain. As a result, respondents reported not being able to complete the questionnaire at home as they had no access to the internet which meant that they could not access their emails, where the link was sent. In addition, it was found that, despite them having phones, their compatibility with the software used at work was an issue.

8. Best practices and solutions

We found that proactively engaging stakeholders early in the research process is crucial for fostering collaboration and gaining necessary approvals. Furthermore, communicating the study's objectives and potential benefits clearly can facilitate smoother. When in resource-constrained environments more planning is required, inclusive research tools need to be designed as was done for the eThekweni Municipality Sizakala Centres study to ensure that a broader demographic can participate. In future and in other settings, hybrid data collection approaches might be more effective, combining online and offline methods, can help address digital access issues by providing alternative formats, such as printed questionnaires, for those without reliable internet. Moreover, collaborating with IT departments ensures compatibility between survey platforms and participants' devices, as done in this study, posing an effective solution that enhances response rates while maintaining the integrity of the research process.

9. Recommendations for researchers and policymakers

Researchers doing work in complex contexts like the Global South should prioritise early and sustained engagement with key stakeholders; which should include organisational leaders and community representatives. Building trust and establishing a study's value for all stakeholders, will streamline the negotiation process for access to research sites (Matamanda, 2022). Policymakers can support similar efforts by developing standardised protocols that facilitating research approval processes, particularly during crises like pandemics. In addition, to mitigate digital inequality, governments need to invest in expanding affordable broadband infrastructure and subsidising ICT resources for marginalised communities, as emphasized by Gillwald (2017) and Taylor (2023). Institutions can further enhance participation by offering communal technology hubs. Furthermore, addressing gender digital divides requires researchers to consider how gender dynamics influence access and engagement, designing tools that are inclusive and sensitive to these disparities. Policymakers can support these efforts through targeted initiatives to improve digital literacy and technology access for women, particularly in underserved regions.

10. Conclusion

Empirical studies in the public management domain are rapidly increasing. However, sharing of fieldwork experiences is yet to gain notable popularity in the literature. This paper was a reflective account of the first author's doctoral experiences during data collection, on investigating the gendered internal service quality expectations and perceptions of customer contact employees at the eThekweni Municipality in the KwaZulu Natal province of South Africa. The unforeseen pandemic attests to the notion that field realities tend to differ from what academics and practitioners often anticipate when developing methodological guidelines. The field context changed drastically – notably due to the COVID-19 pandemic-, posing unique socio-economic, cultural and political challenges that often enable or restrict uninhibited research processes. It became for us, an authentic exploration of uncharted regions, presenting complexities that required dynamism, flexibility and constant adaptability on our part. One of our key reflective rationalisations is that ethical decisions and practices when in the field are variable, requiring flexibility and adaptability, and are additionally fashioned

by contextual circumstances which subsequently suggests that provisions for conducting fieldwork cannot be made by universal rules (Shaw, 2008) made by individuals or committees far displaced, in theory or practise, from the practical everyday realities of research, and in particular, the data collection process.

Our experience suggests the need for flexibility and adaptability on the part of researchers and institutions of higher learning, when conducting studies with well-established public enterprises, particularly, with their own Research unit. Reflecting on our interactions with eThekweni Municipality, we challenge many existing methodological assumptions in the Public Administration domain and re-examine certain issues. It is our experience now, informed by the challenge with access to the research population, that many of the issues that arise when collecting primary data are not anticipated, nor are they adequately addressed or accounted for by the existing Research Ethics Review Boards (Thummapol et al., 2019; Banduko and Arku, 2023). We found that despite the efforts of Institutional Ethics Review Committees to set out standard procedures on ethical research conduct, we had to navigate and chart our own path, through a series of ethical challenges that arose as we conducted our fieldwork (Lunn, 2014). Our inclination is to align with the concept that research ethics is an experiential journey, always evolving and interrelated, as opposed to a rigid set of pre-established rules, assumptions, and codes of behaviour (Amauchi et al., 2022; Banduko and Arku, 2023). Indeed, ethical decisions and practices in the field are variable and are shaped by contextual circumstances, and therefore, cannot be encapsulated by universal rules (Shaw, 2008). There are several unknown factors that can disrupt fieldwork plans, force changes to methodological approaches and which demand versatility on the part of researchers.

Finally, our reflection underscores the importance of embracing the unpredictable nature of fieldwork, advocates adaptability, and acknowledges the context-bound nature of ethical decision-making. It urges a re-evaluation of existing assumptions and a more nuanced, experiential approach to research ethics within the dynamic realm of public management.

10.1. Study limitations and directions for future research

The study had quite a few limitations that provide vital context for its findings. One major limitation noted was the dependence on online surveys, which, while efficient during the COVID-19 pandemic, it posed significant challenges related to digital inequality. Many participants had inconsistent access to internet resources, due to issues including unreliable connectivity and the high cost of data exacerbating the digital divide, particularly in marginalised urban populations. Moreover, the gender digital divide resulted in unique barriers, because women in these contexts often have limited access to technology and decision-making power over its use. These limitations may have influenced the response rate and resulted in potential biases in the data. Another limitation was the focus on eThekweni Municipality making the study context-specific, which, while offering rich insights into a dynamic urban environment, limits the generalisability of the findings to other contexts with dissimilar socio-economic and technological characteristics.

Future research could explore alternative data collection methods that address digital inequalities, such as hybrid models combining online and offline approaches. Longitudinal studies examining the long-term impact of digital inequities on public service delivery and employee perceptions could provide deeper insights into these systemic issues. Additionally, comparative research across different municipalities or regions could enhance the generalisability of findings and uncover contextual variations in challenges like gender disparities and access to ICT.

Competing interests

There are no competing interests related to this research. No financial or personal relationships with individuals or organisations have influenced the work presented in this article.

Data availability

There is no data to declare for this article.

Ethical approval

This research has been conducted in accordance with ethical standards and principles. No approval was required as it is a reflective paper.

Informed consent

No informed consent was required for the production of this paper.

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