

DOI: https://doi.org/10.48009/4_iis_2024_102

Improving the justice system services in Namibian rural communities through mobile technology

Hedvig Mendonca, *Cape Peninsula University of Technology, South Africa, hiibizz@gmail.com*

Tiko Iyamu, *Cape Peninsula University of Technology, South Africa, iyamut@cput.act.za*

Abstract

There is limited access to Justice system services in rural communities of Namibia, stemming from inadequate infrastructure and resources which contributes to a concerning escalation in poverty and crime rates within these communities. The study examines the factors that influence the Namibian Ministry of Justice's services to rural areas. The qualitative methods were employed, and actor-network theory (ANT) was applied as a lens for analysis. The study reveals that a mobile-enabled platform can be used to improve the efficiency and effectiveness of the Ministry of Justice service delivery. It highlights the factors that can influence the development of the platform. The findings have significant implications for improving the efficiency and effectiveness of the Justice system services, from both technology and the Ministry of Justice's perspectives.

Keywords: actor-network theory, justice system services, rural community, mobile-enabled platform.

Introduction

Access to Justice system services is a fundamental right that is enshrined in the constitution of many countries around the world (Greenbaum, 2020; Hassan & Rupa, 2021; Junqueira et al., 2023). However, in rural areas of many developing countries, access to services provided by the Justice system is often limited or not in existence, or practice (Balogun, 2020; Hale et al., 2021; Statz et al., 2021; Hale, 2022). Although Olusegun and Oyelade (2022) posit that services provided by the Justice system include legal aid, advice, representation, education, and dispute resolution, having equitable access to Justice system services for many in rural areas is still a challenge. In Namibia, many people live in rural communities and, access to Justice system services is a challenge due to various factors, including poverty, inadequate infrastructure, and limited resources.

The Justice system and its services rely on various resources, including information technology (IT) solutions, sociotechnical infrastructure, and human capital (Tokarev et al., 2019; Rigano, 2019; Dikarev & Vasyukov, 2020; Deseau et al., 2019). However, integrating the services of Namibia's Justice system into a single portal proves challenging in existing information systems. Some sociotechnical infrastructures are underutilized or malfunctioning, and Justice-focused experts are scarce, particularly in rural communities where their presence is limited, resulting in limited access to Justice system services in these regions.

Owing to these challenges, access to the Justice system and its services have increasingly become prohibitive or unreachable. Thus, desperately, many members of rural communities in Namibia travel long distances, to seek services. Some members of these communities do not have the means to seek the services.

The evolution of IT solutions such as mobile technology (MT) can resolve these challenges. A study by Zongwe (2021) asserts that legal services in Namibia are expensive and recommends that policymakers consider developing a mobile application to compare the prices of legal services provided by different legal practitioners. This only shows how important it is to use technology to solve these problems.

MT has revolutionized how people access services, particularly in developing countries with limited infrastructure. MT has been used to provide access to various services such as healthcare (Till et al., 2023), education (Josua & Kanyemba, 2023), and financial services (Svotwa et al., 2023), but there has been limited research on how it can be integrated with the Justice system to improve access to Justice system services for rural communities. In the health sector, MT has been used to provide access to health services, monitor public health outbreaks, and manage disease outbreaks (Houlihan & Whitworth, 2019). Additionally, according to a study conducted by Osakwe et al. (2019), Namibian teachers believe that MT can help them with their teaching methods. Another study by Alauddin et al. (2022) highlights how the use of MT has benefited the tourism and hospitality industry in Hong Kong. However, the use of MT in the Justice sector has been limited, particularly in rural communities where access to Justice system services is often limited. The integration of mobile technology-enabled platforms with the Justice system could provide rural communities with access to Justice system services and empower them.

Mobile devices, such as mobile telephones and computers, are important IT tools for a variety of tasks and procedures, including service delivery in both urban and rural areas (Makovhololo, 2018). Also, many local governments have made significant investments in IT infrastructure (Tungela, 2021). The issue of limited and unequal access to Justice system services has garnered considerable attention among scholars, revealing a substantial body of literature. However, a research gap exists in terms of exploring the potential integration of the Justice system with mobile technology-enabled platforms aimed at empowering rural communities. This research gap serves as a motivating factor for the current study. This study seeks to address this gap by designing a mobile technology-enabled platform that is integrated with the Justice system to improve access to Justice system services and empower rural communities in Namibia.

Based on some of the challenges identified above, this study aims to examine the factors that influence the Namibian Ministry of Justice's services to rural areas. Therefore, poses a question: what are the factors that influence the Namibian Ministry of Justice's service delivery to the rural communities? This paper is organised into seven sections. It begins with an introduction and contextualised problem sections, followed by a section that presents a review of the literature that forms core aspects of the study. Thereafter, the theory, actor-network theory (ANT) that underpins the study is discussed. The methodology applied and the analysis using ANT are presented in the fifth and sixth sections, respectively. Finally, a conclusion is drawn.

Contextualising the problem

Justice is a fundamental right of the people, as enshrined in the constitutions of many countries (Sung, 2020; Ochieng & Nyaga, 2021; Mandjo & Sarson, 2021). However, there seems to be unequal access to the Justice system and its services in some countries such as Namibia. The unequal access is common with the rural populace, and it is caused by insufficient and limited resource deployment, respectively. Another factor causing limitation is the geographic distance from the rural communities to urban communities where the Justice system functions better and access to services is easier (Durojaye et al., 2020). As a result, access to the services of the Justice system is limited in the rural communities of Namibia. This includes limited access to legal information, legal representation, legal aid, and physical structures to provide legal services. Consequently, rural communities in the country are increasingly delayed or denied Justice. This problem

has significantly contributed to the increasing crime rate and has grown the confidence of those involved in illegal activities and processes in the country.

The problem has two detrimental implications. First, it affects the mental health of those who are victims of criminality because access to the Justice system or its services is limited. Second, it derails the economy of the environment, primarily because of the skepticism to invest or promote investment in the rural communities of the country. Thus, it is critical to address the problem, which can contribute to uplifting poverty in the country.

Literature review

This section covers a review of the literature that is the study's core aspects, which are technology and access to Justice services.

Information and mobile technology

Information technology (IT) refers to a wide range of technologies that are universally recognized and embraced for their transformative potential in driving development and ushering in significant changes in our modern digital era (Adeyemi et al., 2023). These technologies encompass various tools, systems, and networks that enable the effective gathering, processing, storage, transmission, and utilization of information (Viberg et al., 2023). IT is an enabler of business processes providing automated solutions.

IT solutions have gained global acceptance as a vital catalyst for development due to their unparalleled capacity to accelerate progress in various spheres of life. With their widespread adoption, IT solutions have transformed the way society functions particularly MT, creating opportunities for innovation, economic growth, and societal advancement. By leveraging the power of IT solutions, nations and communities can overcome traditional barriers and tap into the vast potential of interconnectedness and information sharing (Abdon et al., 2023).

MT has transformed how services are accessed globally, including in Africa and Namibia. However, the use of MT to enhance access to Justice system services and empower rural communities in Namibia is underexplored. The use of MT has been linked to increased access to various services, including health (Lin et al., 2023; Hicks et al., 2023), education (Shanmugapriya et al., 2023; Josua & Kanyemba, 2023), and finance (Sharma & Díaz, 2023; Shaikh et al., 2023). India is often hailed as a global frontrunner in the fintech industry, with its innovative advancements in finance recognized as a success story. These achievements are considered applicable and significant for economies at various stages of development worldwide (Migozzi et al., 2023). According to Noorbhai and Ojo (2023), many academics have found themselves in a digitalized environment where they are required to embrace and employ various technologies for various services. The integration of MT into the Justice system has the potential to change access to Justice system services, particularly in rural communities (Menon, 2020; Rule, 2020). However, limited research exists on this topic in Namibia. Further investigation is needed to explore the possibilities and benefits of integrating MT into the Justice system, to empower rural communities and promote a more inclusive and equitable Justice system that can provide access to its services for all in Namibia.

Access to services of the justice system

Access to Justice is a fundamental human right that allows people to seek remedies through the legal system when their rights are violated. It ensures that all individuals, regardless of their socio-economic status or

geographical location, have equal access to Justice system services (Zongwe, 2021). The United Nations has recognized access to Justice as a crucial element in the protection and promotion of human rights. In 2015, the United Nations adopted the Sustainable Development Goals, which include Goal 16, which aims to “promote peaceful and inclusive societies for sustainable development, provide access to Justice for all, and build effective, accountable, and inclusive institutions at all levels” (United Nations, 2022). The goal highlights the importance of access to Justice in promoting development and ensuring the protection of human rights.

Despite the efforts made by African governments to improve access to Justice system services, significant barriers persist and access to Justice system services remains a challenge, especially for rural communities. These barriers include socioeconomic disparities, insufficient resources allocated for legal aid services, operational inefficiencies within the system, and limited awareness regarding legal rights, remedies, and the overall legal framework (Greenbaum, 2020). Several studies have shown that MT can be an effective tool for improving access to Justice system services in the world (Sourdin et al., 2020; Statz et al., 2021).

In Namibia, access to Justice system services remains a significant challenge, particularly for rural communities. The limited availability of legal services and infrastructure, coupled with the high cost of legal services, means that many individuals in rural areas are unable to access Justice system services (Zongwe, 2021). The Namibian government has taken steps to address these challenges, including the establishment of community courts and the provision of legal aid services (Ubink, 2018). However, these efforts have been hampered by limited resources and infrastructure. Therefore, there is a need to explore alternative approaches, such as the use of MT, to improve access to Justice system services in Namibia's rural communities.

Actor-network theory

The Actor-Network Theory (ANT) underpins this study, primarily because of its focus. ANT is a sociological theory that seeks to explain how social networks are formed and how they interact with each other (Crawford, 2020). The theory focuses on actor-network, translation, and shifting negotiation among involved actors in a social system (Callon, 1986; Law, 1992). According to Latour (1996), in ANT, a network incorporates human and non-human actors and stabilises translations and interactions between actors. The theory posits that humans and non-humans (objects, technologies, and organizations) are all part of a network and that they are all equally important in shaping social reality (Iyamu et al., 2013).

ANT is increasingly used to provide an explanation and interpretation of socio-technological change and progress (Iyamu, 2015). This helps to gain a deeper understanding of complex interactions between different actors in a social structure, such as the Justice system, including rural communities, MT, and Justice system service providers. This can be attributed to ANT's emphasis on the importance of non-human actors, such as technology, in shaping social networks (Iyamu et al., 2013). Iyamu (2021) argues that everything in the social and natural world exists in constantly shifting negotiations in networks of relationships (P. 74), thus, actors' involvement in the activities and processes of IT solutions inevitably brings about negotiation, to reach a common goal in the interest of an environment (P. 76). The study aims to bring together diverse actors and resources, facilitate knowledge exchange, and create a networked system that empowers rural communities in Namibia by enhancing their access to Justice system services through a mobile technology-enabled platform.

Translation, a key tenet of ANT, facilitates the alignment and mediation of diverse actors' interests and actions within a network (Iyamu, 2018). Its role in negotiating meanings and creating shared understandings

makes it particularly suitable for integrating the Justice system with a mobile technology-enabled platform for empowering rural communities. Thus, the moments of translation will be employed, to underpin the study. This means that the theory will be used to guide the analysis of the data, to understand the dynamics of integrating the Justice system with a mobile technology-enabled platform, in rural communities of Namibia.

The moments of translation consist of four key stages, as shown in Figure 1: problematisation, interessement, enrolment, and mobilisation (Callon, 1986). By applying these moments, the study will investigate how actors engage in the process of aligning their interests, negotiating processes and meanings, and applying available resources, to empower community members.

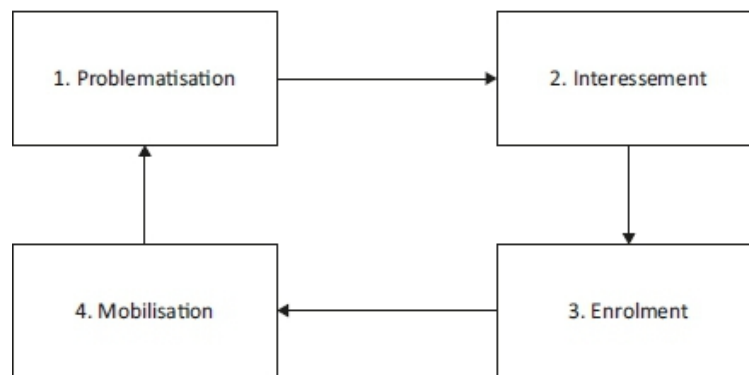


Figure 1: Moments of translation (Callon, 1986)

ANT provides a useful framework for understanding the complex interactions between different actors in providing services of the Justice system and the role that MT can play in empowering rural communities. Based on its focus, the theory can guide in gaining a deeper understanding, from both technical and non-technical perspectives, of the various actor-networks that exist (Heeks & Stanforth, 2015), and how they manifest to influence access to the services of the Justice system in Namibia. In addition, ANT can help to translate the interaction between Justice system services providers and the rural community members, towards a common goal and interest.

Methodology

From the qualitative methods perspective, the document analysis technique was employed for data collection, because it helps to gain a deeper understanding of the phenomenon being studied (Taquette & Borges da Matta Souza, 2022). Documents related to the services provided by MOJ were collected. The documents included annual reports, strategy documents, operational documents, and positioning papers. Another rationale for selecting the document analysis technique is that documents not only serve as records of historical events but also play a role in shaping and mirroring the social reality they encapsulate (Blaxter et al., 2010). A total of 28 documents were gathered with a combined 1313 pages. Samples of the papers are presented in Table 1.

Table 1: Document as data

Focus	Type	Document	Page
Justice services	Peer-reviewed	Gender-Based Violence: Victims, Activism and Namibia's Dual Justice Systems	42
		The Role of the Legal Services Corporation in Improving Access to Justice	8
		Lessons about Access, Power and Participation in Non-state Justice Systems	21
		Access to What?	8
		How Rising Income Inequality Threatens Access to the Legal System	10
		Nobody can Really Afford Legal Services: The Price of Justice in Namibia	42
		The 'Africa we want' in the African Union's Agenda 2063 on the realisation of women's human rights to access justice	21
		Paralegals and the provision of affordable and accessible legal services	7
		Access to Justice for the Poor: Rethinking the Role of International Human Rights Organizations	15
		Pathways to Justice: Expanding Access for Everyone	22
		Legal Deserts: A Multi-State Perspective on Rural Access to Justice	144
		Towards a New Juvenile Justice System in Namibia	14
	Non-peer reviewed	MoJ Customer Service Charters Booklet 2023	80
		Legal Aid Act	12
		Constitution of the Republic of Namibia	61
		CEDIL Synthesis Working Paper 8: Evidence and gap map-studies of the effectiveness of justice sector	113
Mobile technology solution	Peer-reviewed	Progress towards the Sustainable Development Goals	25
		mHealth to the Rescue Growing use of wireless and mobile technologies improves community health even in rural areas	9
		Farmers' Use of Mobile Devices in Developing Countries	7
		Enabling Quality Education in Namibia Through Mobile Learning Technologies. The High School Teachers' Perspective	9
		Techno-Optimism & Access to the Legal System	6
		Factors Influencing the Adoption of M-Government: Perspectives from a Namibian Marginalised Community	13
		Improving Access to Justice in State Courts with Platform Technology	59
		Technology, Innovation and Access to Justice	318
		Justice-as-a-Platform	28
		Rural Women's Legal Empowerment through Digital Technology	74
		Technology, Domestic Violence Advocacy and the Sustainable Development Goals	23
	Non-peer reviewed	Digital Equity in Access to Justice	122
Total			1, 313

The data was analysed using the thematic analysis technique. The technique focuses on identifying patterns and themes (Scharp & Sanders, 2019). ANT is used as a lens to guide the use of thematic analysis, in the analysis of the data. The theory is discussed in section 4.4. The focus of the analysis includes the following:

- i. Identifying the essentiality of the services provided by the MOJ. One of ANT's strengths is translation (Callon, 1986), which can be used to understand why and how the activities are translated into essential services.

- ii. Identifying the relationship that exists between the actors of both MOJ and the community. The moments of translation from the ANT perspective focus on how the relationship between actors comes to being and how it manifests (Crawford, 2020; Heeks & Stanforth, 2015).
- iii. Identifying the relationship between the community and the services provided by the MOJ. In ANT, everything in the social and natural world exists in constantly shifting negotiations in networks of relationships (Iyamu, 2021: P. 74).
- iv. The interaction that happens between the actors, leads to conscious and unconscious negotiation in the delivery and accessing of the MOJ services. ANT helps to gain a deeper understanding of the interactions that happen between actors and how they stabilise within processes (Latour, 1996). Thus, actors' involvement in the activities and processes of IT solutions (such as mobile technology) inevitably brings about negotiation, to reach a common goal in the interest of the environment (Iyamu, 2021: P. 76).

Factors influencing the Namibian justice system

The moments of translation of ANT are employed to examine the factors that influence the Namibian Justice system service delivery and the implications of the service offering, to the rural community. As shown in Table 2, the four moments of translation were followed to gain a deeper comprehension of the factors that influence the Namibian Ministry of Justice service delivery. Based on its explicit focus on actor-network, shifting negotiation, and its mantra 'follow the actors', ANT presents itself as an impressionistic tool for analysis. No human is an island but exists in a social context. Consciously or unconsciously, negotiations happen and often shift as the event progresses.

Table 2: Examining the Namibian Justice Services

Problematisation - 1	Interessement – 2
The government problematises that its core functions are to ensure equitable access to justice services, by improving the effectiveness and efficiency of its structure that focuses on justice matters (Ntlama-Makhanya & Lubisi-Bizani, 2021). However, rural dwellers have limited access to services due to poor infrastructure and a lack of specialised personnel. The challenges arise primarily because problematisation happens at the national level, not the regional level. As a result, the items problematised do not drill down to the regions and when it does, the content has gone through various interpretations making it lose its originality and focus. ANT accounts seek to allow actors to speak for or against the social context in which they find themselves (Baocchi, Graizbord & Rodríguez-Muñiz, 2013). Interpretations based on translations are influenced by either technical know-how or personal interest, as opposed to the Ministry of Justice's objectives. This means an IT solution (a mobile-enabled platform) can be employed to design a district model, to ensure a common and reliable communication channel.	Due to the poor service delivery, many community members do not show interest in the services provided by the Namibian Ministry of Justice. This is exacerbated by a combination of factors (Sandefur, 2019). One of the factors is a lack of communication from the Ministry of Justice. This is caused by an inherent sense of service delivery and limited technical know-how. Another important factor is illiteracy, which hinders the ability to understand and seek solutions for the prevailing circumstances. Also, the Ministry of Justice does not seem to have empirical evidence on why many community members lack interest in their services. ANT's mantra is to 'follow the actors' (Latour, 2005). Silvis and Alexander (2014) argued that explicit insights can be gained by following the actors. Consequently, members of rural communities often experience challenges in their quest, to receive protection and benefit from the Justice system services. Following the actors could help address the challenges, going by Law's (2009) claims that a degree of humility is one of ANT's intellectual leitmotifs.

Mobilisation - 4	Enrolment - 3
The Ministry of Justice is measured by its service delivery to the larger population rather than the urban minority. Thus, rural community forms one of the major pillars, to which service delivery is crucial. Despite its criticality, the mobilisation of the Namibian rural community remains low and weak. Consequently, authorities of the Ministry of Justice are failing to provide adequate services to the rural communities, which has exacerbated the crime rate, and criminality makes the poor poorer. On this basis, Zongwe (2021) argues that implementation remains derailed. A technology-supported and enabled solution can be employed to ease the mobilisation of the community members. Technology allows the Ministry of Justice and other judiciary stakeholders, to provide and receive services, more effectively and efficiently through a Mobile-enabled platform where processes are automated, and documents are easily accessed.	Currently, there is a distinct gap in providing and receiving the Ministry of Justice services in the rural areas of Namibia. Despite impediments, IT solutions can be incorporated to transform how Justice system services are provided and accessed. This can facilitate the participation of community members to help the government improve the efficiency and effectiveness of the Justice system services in the country. This includes the development of an electronic and mobile-enabled platform, to disseminate information and access other important services. Enrolment by members of the community is a matter of translation. Translation is central to ANT, which Callon and Law (1982) described as different claims, substances or processes equated with one another. The platform will incorporate a familiar difference such as e-village square, and e-community hall, which allow more inclusive participation of rural community members.

The analysis guided by ANT's moments of translation, tabulated in Table 2, reveals that a mobile-enabled platform will address the challenges encountered by both the Ministry of Justice and the rural community. Also, the analysis highlights crucial factors that influence Justice system service delivery: actors' interaction, regional model, inclusive communication, a familiar difference, and technical know-how.

People have common and unique needs. Each person requires a different level of human interaction with other actors. Primarily, this is because the need for connection is inherent. Umejei (2021) describes a familiar difference as a previously familiar occurrence but different in the new or current dispensation or environment. The rural community members are familiar with the gatherings or meetings occurring in person. The concept of a mobile or electronic platform is different but the idea of gathering is familiar. ANT highlights how important it is for everyone and everything in the network (Ministry of Justice staff, legal professionals, community leaders, technology, and residents) to interact and work well together (Latour, 1996). For a mobile-enabled platform to be effective, these actors need to communicate, collaborate, and interact effortlessly. Building upon Umejei's (2021) concept, the mobile-enabled platform should bridge the gap between the familiar and the new. Even if the platform itself is new, adding features that fit into the community's usual ways of doing things can make people more interested. For example, online forums can replace traditional community gatherings.

A mobile-enabled platform is designed for the specific needs and context of the rural community because no one size or formula fits all. For example, the platform should be adapted to fit local languages, cultural norms, voice interfaces, simplified interfaces, and the dialectic (communicate) approach, to ensure more people in the community use it. Using the platform means making it accessible to people at different technical know-how and literacy levels. To handle this, community training programs or partnering with local organisations should be considered, to offer technical support. By keeping these factors in mind, a mobile-enabled platform can be created that truly meets the needs of rural communities and helps make the Justice system more accessible and inclusive.

Conclusion

The study reveals the challenges and factors that derail service delivery to the rural community, by the Ministry of Justice in Namibia. The Factors include Actors' interaction, regional model, inclusive communication, a familiar difference, and technical know-how. The study highlights the need to develop a mobile technology-enabled platform, which the Namibian Ministry of Justice can employ to improve the efficiency and effectiveness of its service delivery, to the rural community. Also, the mobile-enabled platform does not improve and ensure inclusivity but enables 'following the actors', which contributes to mitigating crimes.

Additionally, there are more concise implications from both practical and methodological standpoints. Practically, the findings have implications for policymakers and stakeholders about the feasibility, benefits, and integration of a mobile-enabled platform with the Justice system. This means that the factors that guide the development and implementation of such innovation must be understood. Methodologically, the use of ANT to examine rural community activities advances the use of the theory and contributes to advancing indigenous systems. It helps us understand how different actor-networks can work together in a rural setting, in developing indigenous systems.

However, there are limitations to the study. It did not provide empirical evidence on how a mobile-enabled platform can be developed and integrated with the Namibian Justice system. Thus, further research is to design a mobile technology-enabled platform that is integrated with the Justice system, to improve access to Justice system services and empower rural communities in Namibia. This will include identifying the challenges associated with accessing the Justice system and its services in the country.

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