

Title page

Barriers to Accessing Assistive Technology in Africa

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To ensure that all people have access to assistive technology (AT), the World Health Organisation (WHO) published a priority assistive product list in 2016 (World Health Organisation 2016) and declared that the products on the list were a basic human right. WHO hoped this would facilitate easy access to AT across the world. However, AT is difficult to access in developing countries, particularly in rural Africa, where there are significant institutional voids.

Institutional voids refer to underdeveloped political and economic systems, trade policies, and product, labour, and capital market deficiencies that imply the absence of specialised intermediaries, regulatory systems, and contract enforcing mechanisms (Khanna and Palepu 2010). They create higher transaction costs for doing business and are commonly found in developing countries (Mickiewicz and Olarewaju 2020). The concept of "voids" does not imply lack of any institutional order, it is more specifically related to the absence of institutions that support markets (Mair and Marti 2009). In other words, the transaction costs are higher both for market exchange, and for new firm entry.

The transactions cost for AT in Africa are high due to several factors, particularly, the high costs of importation and local production, irregular tariff structures, lack of a unified governance framework, and a widespread lack of awareness about such devices. This has led to a situation where 44% of people in Botswana and 67% of people in Swaziland who need assistive technologies on the continent do not receive it (Matter and Eide 2018).

Institutional voids theory could be leveraged to explain the access gap for AT in Africa. For example, although there has been the publication of a priority assistive product list by the WHO to ensure that all people have access to AT (World Health Organisation 2016), the political and economic systems on the African continent are underdeveloped especially when compared to the same systems in Europe. Specifically, the European Parliamentary Research Service has commissioned and published an in-depth report of AT on the European continent, covering economic, legal and socio-ethical perspectives of AT for its citizens. The report crucially tries to implement the WHO declaration that AT is a basic human right (European Parliament 2018). Such a focused and thorough evaluation is missing for the African continent where it could be argued that policies would also be much harder to implement. This has led to a situation where providers of AT in Africa face higher transactions costs for providing AT.

Surprisingly, researchers have not investigated the link between institutional voids and the resultant high transaction's costs for AT providers in Africa. Our preliminary investigation to understand how the key providers of AT in four African countries, Kenya, Togo, Congo and Rwanda, have been able to provide AT in their countries despite high transactions costs prove that this is an area that should be looked into if fair access to ATs is a priority. Information deficits, irregular tariff structures, and regional peculiarities lead to disparities in the implementation of well-intentioned global guidelines. Crucially, these make it hard for the AT

market to evolve to effectively serve those who need access to AT in rural Africa, where they are currently needed most (United Nations 2019). Some examples of research directions to help in this regard might be to investigate how hybrid forms of structures could evolve to overcome institutional voids for AT or how providers of AT could minimise the inefficiencies associated with operating in Africa (Williamson 1989).

The use of institutional voids theory would also be beneficial in highlighting how the different tariff regimes, gaps in current levels of knowledge, and localised conditions affect the AT market in Africa. Furthermore, institutional voids theory can help to examine the effects of the WHO priority assistive product list and its impact on the transaction costs of AT commerce in Africa. Such knowledge will in turn identify how healthcare providers who market AT products overcome institutional voids on the continent so that markets in imported AT products and those produced domestically can evolve expeditiously.

The idea of “Institutional Entrepreneurship” could also be used by researchers to highlight how institutional voids can be filled in underdeveloped AT markets. Institutional entrepreneurship refers to the activities of actors who have an interest in institutional arrangements, and who lever resources to create new institutions or to transform existing ones (Hardy and Maguire 2017). Institutional entrepreneurship belongs to a wider category of institutional strategies and describes the ways in which individuals and organisations purposefully and strategically shape their institutional environment to enhance their competitive advantage (Marquis and Raynard 2015). Such strategies are classified as relational, infrastructure-building, and socio-cultural bridging. For example, our preliminary investigation suggests that key providers of AT in Africa exhibit typical traits of institutional entrepreneurship, and frequently form coalitions of stakeholders with local citizens and non-governmental organisations, who act together and become embedded in specific organisational forms to fill the institutional voids present in their environments to allow individuals access to ATs.

Indeed, NGO’s such as the International Red Cross and intergovernmental organisations such as the WHO partake in institutional entrepreneurship by creating pathways that other stakeholders can replicate. However, there is a need for a structured enquiry into the use of resources employed by these organisations and how they could be efficiently expended to leverage progress. This enquiry would also highlight the gaps in scientific and clinical knowledge and the resource requirements needed for innovative AT development and deployment.

In summary, we call for: (1) a structured investigation into the trade barriers in Africa; and (2) a structured investigation into the resources used to mitigate institutional voids on the continent. The information generated through these initiatives will help drive strategic initiatives to develop institutional entrepreneurship that could be replicated across Africa to bridge institutional voids pertaining to AT.

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