

Voice-First Generative Al for Impact: Insights from Viamo's Ask Viamo Anything pilot in Zambia

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Introduction



Generative AI (GenAI) has transformative potential for impact in low- and middle-income countries (LMICs) by expanding access to information and services to users in rural and semi-urban areas. GenAI solutions, especially those leveraging language-based models, have been emerging since the launch of OpenAI's ChatGPT in 2022. Viamo has been an early adopter, combining its voice-based information product with GenAI to create impact in LMICs. This case study on the **Zambia pilot of Viamo's voice-first GenAI' feature, Ask Viamo Anything** (AVA), adds to the growing body of evidence on the use of GenAI in development.



Piloted in Zambia in May 2023, AVA builds on Viamo's existing IVR powered platform, combining GenAl with speech technology to provide cross-sectoral information to mobile users who do not have access to the internet or face barriers in using mobile internet.

This use case highlights several key features:

- The combination of IVR and GenAI means that Viamo can expand its reach, accommodating low-literacy users and delivering content at scale to mobile users in low-resource settings. Compatibility with legacy technology (i.e. a voice-based conversational chatbot) means that Viamo has removed some of the barriers to accessing AI tools, such as the cost and availability of smartphones, and the cost of internet access.
- AVA allows users to ask personalised questions privately and receive spoken responses tailored to their needs. Unlike IVR systems with pre-recorded structured messages, AVA's conversational voice-first GenAI approach offers an improved and engaging user experience.
- By enabling users to ask questions across multiple sectors, AVA provides a unique insight into what users are interested in, and the key issues and challenges they face within different sectors. This provides valuable data for targeted interventions.

This case study outlines the deployment of a voice-first GenAl solution in LMICs, discusses early results from Viamo's AVA pilot in Zambia, and assesses the considerations in scaling such solutions.

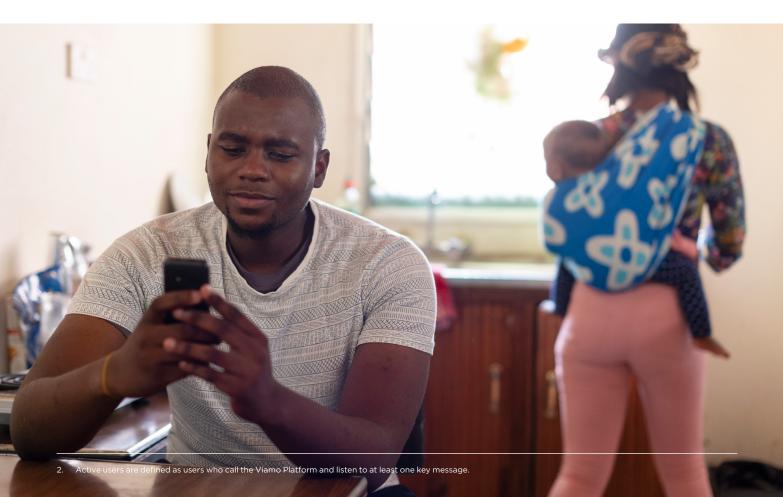
1. A type of AI that is involved in generating new data or content, including text, images or videos, based on user prompts and by learning from existing data patterns. See: Humeau, E. & Deshpande, T., (2024). <u>AI for Africa: Use cases delivering impact</u>. GSMA.



An overview of Viamo

Set up in 2012, Viamo is a social enterprise working closely with MNOs, international development organisations and private sector companies to deliver on-demand information in local languages to mobile users in a voice format accessible on basic mobile phones. Viamo's business model leverages partnerships with MNOs across 25 countries. Its target audience comprises diverse consumer segments including rural and semi-urban communities, youth and women. By leveraging MNOs' voice channels to deliver services, Viamo can reach a wide mobile user base. Users can call the Viamo Platform to access a range of curated content, codeveloped with Viamo's clients and agencies with domain expertise. In 2024, the Viamo Platform had 24.7 million active users² across Viamo's 25 core countries, providing voice-first information service for impact in LMICs.

Box 1 and Figure 1 present an overview of the company's business model and core products.





Box 1

Viamo's business model and core products

Products offered

Viamo was founded in 2012, using IVR and SMS-based surveys to collect data from communities in rural and semi-urban areas for its clients. In 2015, it launched its 3-2-1 service (since rebranded as the Viamo Platform), which offers free on-demand information through IVR and SMS on topics including agriculture, health, education and finance. The product is used by governments, NGOs and other organisations working with local communities to share localised information, such as public health advisories and other behaviour change communications. In 2023, Viamo piloted their GenAl product, AVA, to select callers using the Viamo Platform in Zambia.

Key resources

Viamo's key resources include its presence in 25 countries across Africa and Africa, market engagement experts based in local communities, the Viamo Cloud System, which is Viamo's proprietary software powering all Viamo products, and longstanding partnerships with MNOs and other industry partners.

Value proposition

Connecting users in inaccessible and lowconnectivity areas with clients seeking to engage with these audiences effectively is Viamo's key value proposition. Viamo offers users toll-free³ voice calls on the Viamo Platform. Viamo also provides clients access to their target audiences at scale, including data on user behaviour and preferences. Viamo's voice-first approach helps overcome barriers like literacy, digital skills, internet costs and geographic isolation, enhancing the inclusivity and accessibility of the Viamo Platform.

Viamo customises each campaign based on audience communication preferences and client objectives, spanning content such as behavioural messages, gamified content, surveys, quizzes and referrals. To ensure alignment with client goals, Viamo employs a robust co-design process. Campaigns are co-developed with clients, sector leaders and user representatives along pre-agreed behavioural objectives. This collaborative approach frequently incorporates existing client-provided material.

Key partnerships

Viamo's clients are donors, international development organisations and private sector companies, including CARE, Chemonics, FHI 360, the Gates Foundation, Mercy Corps, Save the Children, UNHCR, UNICEF, USAID and WFP. Through partnerships with these organisations, Viamo co-creates social behavioural content that it then localises and customises based on the client and project. Viamo has previously partnered with Alight Rwanda and GSMA Mobile for Development to address issues related to gender-based violence in Rwanda, as well as with USAID to develop an IVR solution to enhance access to digital health services in Nigeria.

Viamo engages users through the existing customer bases of their MNO partners, leveraging partnerships through the provision of free calls for subscribers and marketing campaigns. As of 2024, Viamo had partnerships in more than 25 countries with MNOs including Airtel, MTN, Orange, Ufone and Vodacom.

Viamo also partners with news outlets and weather forecast providers⁴ through in-kind cost neutral agreements, exchanging engaging content from partners for insights into the demographic using that content on the Viamo Platform.

Financing and revenue models

Viamo has established several sources of funding, including donors, international development organisations, social impact funds and private sector clients. Some of their key funding partners include the Gates Foundation, GIZ, the GSMA Innovation Fund, UNHCR, UNICEF, USAID and WFP.^{5,6} Viamo's sources of revenue include fees from tailored services like behaviour change campaigns, mobile surveys, mobile training and data-driven insights provided to governments, international development organisations and private companies.

^{6.} GSMA. (2024). Introducing the grantees of the GSMA Innovation Fund for Humanitarian Challenges. (Accessed 19 February 2025).



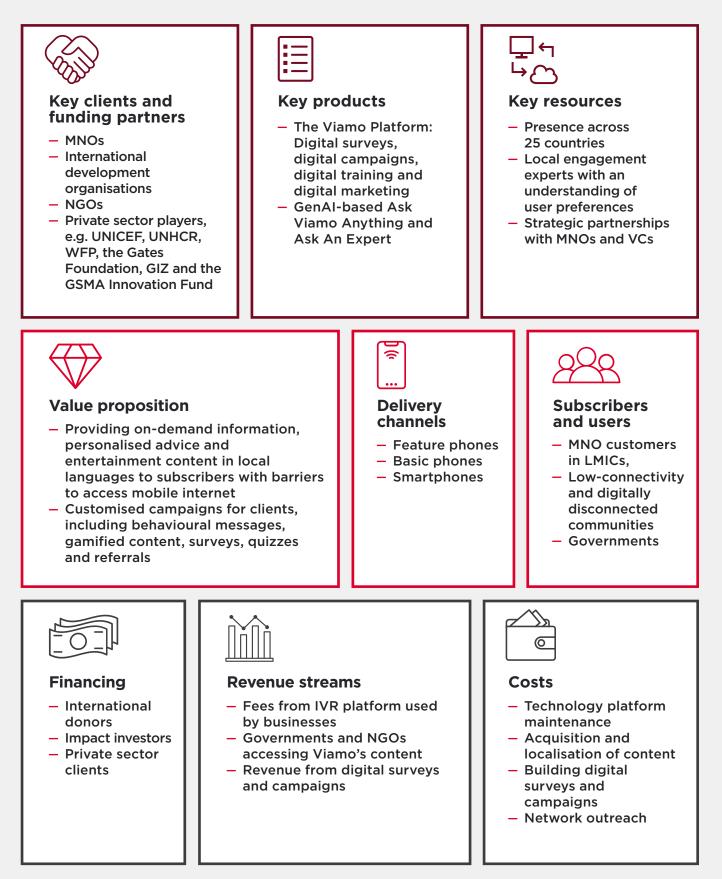
^{3.} The number of free calls available to users depends on the country and type of agreement between Viamo and its partner MNOs.

^{4.} Priebe, J. (2021). Digital Innovation for Climate-Resilient Agriculture. GSMA.

^{5.} Viamo. (n.d.). <u>Viamo awarded \$4M to upscale digital platform serving vulnerable women globally</u>. (Accessed 19 February 2025).

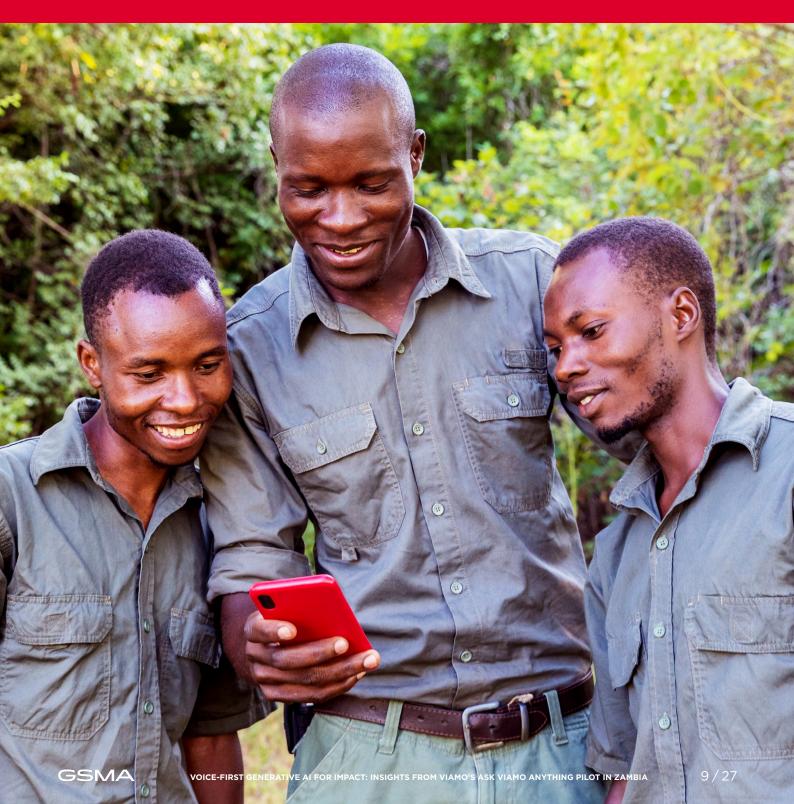
Figure 1

Mapping Viamo's business model and offerings



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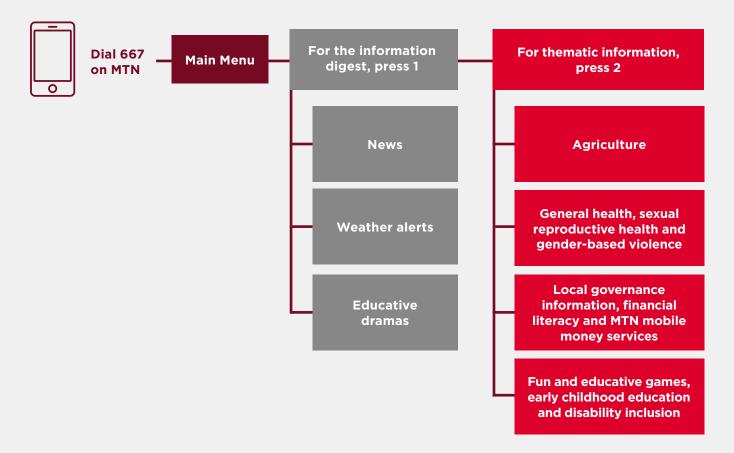
The Viamo Platform in Zambia: The 667 service



In Zambia, the local version of the Viamo Platform is known as the 667 platform, based on the short code used in the country. The 667 platform allows users to listen, free of charge,⁷ to a variety of pre-recorded messages on a broad range of topics including health education, agricultural advice and financial literacy. Through IVR menus (Figure 2), callers navigate through different categories of content using their phone keypad.

Figure 2

Indicative menu of the 667 service*



* The menu changes slightly depending on the language used, and the programmes being implemented by Viamo and their development sector partners.

^{7.} Users in Zambia are offered 10 free calls per month.



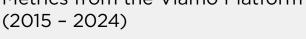
Viamo has partnered with MTN to deploy the 667 service in Zambia. MTN Zambia customers can make 10 free calls to the service each month, after which MTN charges them a small amount to make each call, while Viamo is also charged a marginal fee. The 667 service contributes to MTN's commercial goals, as well as their corporate social responsibility work, by leveraging their network to enhance access to information for hard-to-reach subscribers. All MTN Zambia subscribers can use the service, including users with access to a basic mobile phone. Figure 3 gives an overview of the 667 service's traction since 2015.

Content production and usage

Viamo co-develops the content available on its platform with its clients, which is aligned with specific pre-agreed behavioural objectives. Viamo then customises content to meet local preferences and requirements, translating it into local languages. In some cases, Viamo also uses cost-neutral partnerships to source additional content where needed. For news and weather-related content, Viamo partners with news outlet Zambian National Broadcasting Corporation (ZNBC) and weather forecast provider Earth Networks.

Figure 3 Viamo 667 service's traction

Metrics from the Viamo Platform





Note: Monthly active users are users who call the Viamo Platform at least once per month and listen to at least one key message during that call.

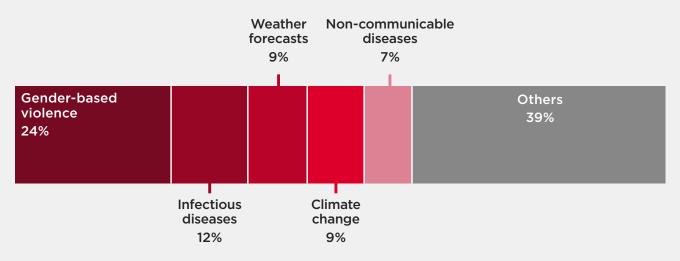
Figure 4

Breakdown of content accessed by users by theme (2015 - 2024)



Viamo has a unique insight into the thematic areas and topics that interest users from different countries and demographic segments. The majority of content accessed on the 667 platform relates to news and health issues (Figure 4), with education, agriculture and gender-related topics (such as family planning and domestic issues) account for a further 35% of the content accessed. This may suggest that users consider the 667 service as an alternative to radio or television to access basic information like news and the weather. While these platforms also feature topical content on issues such as gender and health, the 667 platform can understand its listeners' preferences and interest areas, and finetune the content accordingly. Figure 5 shows a breakdown of the key messages most accessed by users by topic.

Figure 5



Breakdown of key messages accessed by users by topic (2015 - 2024)

Challenges with the use of IVR services

The 667 service has enabled populations in LMICs to access on-demand and locally relevant information using a basic mobile phone. While the use of IVR has been instrumental in ensuring the accessibility and inclusivity of the Viamo Platform, it also presents inherent challenges. Viamo's IVR content, like other digital information services such as chatbots or websites, is curated and co-created with Viamo's clients and partners based on their specific programmatic behavioural objectives and is pre-recorded. Callers can access content through a menu of options and a daily digest of curated content for users who do not have a specific query. Before the launch of AVA, the Viamo Platform was limited to content cocreated with clients and third-party agencies. While this approach generated a significant amount of content, it was not always able to meet the information needs of callers, especially those looking for customised or specific information, highlighting the limitations of IVR technology.

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Leveraging GenAl: Ask Viamo Anything



In 2023, Viamo launched a small-scale userfacing pilot on its 667 service in Zambia. The new feature was presented to users as 'Ask Viamo Anything' to encourage them to ask any questions they had. The primary objective for the AVA pilot in Zambia was to assess how GenAl can boost the value of the Viamo Platform and enhance user experience.

Zambia was selected to pilot AVA due to the large number of English-speaking 667 service users that were already engaging with Viamo's content across urban and rural areas. It was important to choose an English-speaking region as Viamo was using speech-to-text and text-tospeech engines in English to integrate GenAl into its voice-first platform. Zambia was also one of Viamo's more mature markets, with a high number of active monthly users on Viamo's platforms, which further enhanced the feasibility of the pilot.

Initially, AVA was a research and development (R&D) project targeting Viamo subscribers who met certain criteria, including English as a preferred language, the number of times they had called the 667 service and their level of engagement, such as time spent on the platform. In November 2024, following the pilot, AVA was made available to all 667 service users in Zambia.

Strategic relevance of voice-first GenAl to Viamo

GenAl has been a strategic priority for Viamo, as AVA offers the potential to address some of the challenges faced in implementing a traditional IVR solution. For instance, by offering a voicefirst product using OpenAl's ChatGPT, Viamo provides an expanded library of information to its users, as well as content that is more accurate and relevant to their interests.

AVA also has potential to improve the user experience by offering a simplified navigational process compared to the 667 service's multilayered menu. The information provided by AVA is also more personalised than the 667 service which may help Viamo attract new users while retaining existing ones. Further, since AVA is offered to Viamo subscribers already familiar with using IVR and the 667 service, its users have built a level of trust with the company. With AVA, users from the pilot in Zambia reported feeling comfortable asking questions about more sensitive topics. However, AVA is only available for users who can communicate in English, and despite being the official language in Zambia, only about two per cent of the population speaks it as their first language,⁸ limiting Viamo's access to audiences at the last mile. As more local language datasets are developed in African languages, there is an opportunity to expand the offering to more users.

"

I use the product so I can learn more about what is going on and learn more about different products available to us. I used it learn how to go about fighting HIV.

AVA user, Zambia

Early findings from the pilot in Zambia show improvements in two key performance metrics for Viamo, the number of Monthly Active Users of the Viamo Platform and how many Monthly User Benefits (in the form of key messages) they receive through the Viamo Platform. From May to October 2023, AVA users had listened to 40 key messages on average, compared to 9 key messages before AVA was launched, and made 25 calls on average compared to 5 calls before AVA.⁹ More frequent and deeper engagement by users highlights the value that AVA potentially brings to the Viamo Platform, strengthening Viamo's value proposition to their clients and driving their commercial growth.

^{9.} Based on data provided on the 667 service's user engagement 20 weeks before the AVA pilot launch (January 2023) and 20 weeks after AVA's launch (October 2023).



^{8.} Translators without borders. (2021). Language map of Zambia.

Digital connectivity in Zambia

Access to connectivity is one of the critical gaps in the digital ecosystem in Zambia. Zambia is one of 31 countries in the world that has a mobile coverage gap of more than 10%, which means that more than 10% of the population does not live within an area covered by a mobile broadband network, leaving them digitally disconnected.¹⁰

3G and 4G connections account for nearly 90% of all connections (Figure 6). However, according to GSMA Intelligence data, the proportion of 5G connections in Zambia is projected to increase to more than 20% of all connections by 2030, bringing a better user experience for users accessing the mobile internet. This is coupled by a projected increase in the proportion of smartphone connections from about 50% in 2024 to nearly 80% in 2030 (Figure 7).

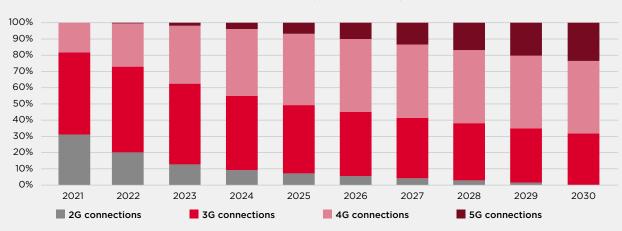
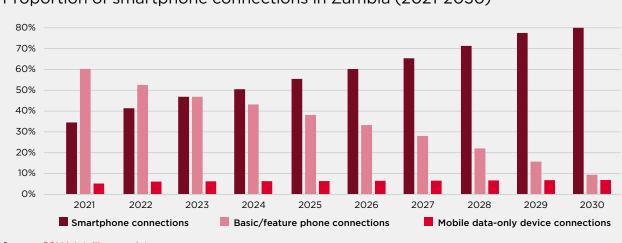


Figure 6 Mobile network connections in Zambia (2021-2030)

Source: GSMA Intelligence data

Figure 7



Proportion of smartphone connections in Zambia (2021-2030)

Source: GSMA Intelligence data

Despite these projections, the performance of mobile networks, mobile data costs and handset affordability are all persistent challenges in Zambia. Handset affordability in particular is key for the population to benefit from the advantages of 5G connection, and Zambia scores just 28.4 out of 100 on this indicator on GSMA's Mobile Connectivity Index.¹¹ Device affordability for the poorest 40% of the population is 15.1 out of 100. There is also a significant gender gap in terms of mobile ownership and access to mobile internet, with Zambia scoring 48.7 out of 100 on indicators related to gender equality in mobile connectivity.

11. See: GSMA Mobile Connectivity Index: Zambia for more information. (Accessed 19 February 2025).



^{10.} Shanahan, M. & Bahia, K. (2024). The State of Mobile Internet Connectivity 2024. GSMA.

AVA pilot: User behaviour and research results



AVA brings value to Viamo's users through personalised responses to a range of openended questions. The product offers a twoway interaction for callers, which is unlike the experience they have with traditional IVR-led information hotlines. Interactive conversations have the potential to empower callers to ask tailored questions to suit their specific needs, as well as offer the opportunity to ask follow-up questions for more detail.

How users access AVA

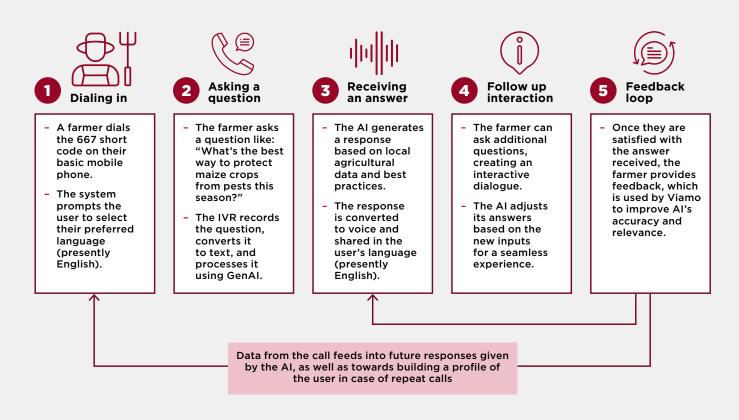
AVA was initially only available to select users of the 667 service,¹² promoted to them through SMS communication. Although these were experienced users, Viamo found that they did not fully understand how to use AVA, resulting in limited interaction and many 'empty' questions. To overcome this challenge, Viamo included several prompts, providing examples to users of how AVA could be used. This increased the number of questions being asked by users.

AVA has since gone live and is now accessible to all English-speaking users of the 667 service on the Viamo Platform. Upon selecting AVA from the main IVR menu of the 667 service, users hear a prompt explaining what AVA is, how it can be used, and how to interact with it, including example questions. This is supplemented by additional prompts provided by Viamo, for example, to keep the response concise and in easy-to-understand and actionable language. AVA functions almost like a search engine, where users can find up-to-date information on topics that are of interest to them.

Figure 8 illustrates a typical user journey for an AVA user on the 667 service in Zambia.

Figure 8

Example of the AVA user journey: A farmer in rural Zambia



12. Active users who were repeatedly returning to the Viamo Platform.



Who uses AVA?

According to data provided by Viamo¹³ for the period between May 2023, when the AVA pilot was launched in Zambia, and January 2025, approximately 36,000 users of the 667 service in Zambia asked at least one question to AVA. Fiftynine per cent of these users were female and 41% were male. Of the approximately 614,000 questions asked on AVA, 95% received a response to their questions, with an average time of three seconds between asking a question and receiving an answer. Between the launch of the 667 service in 2015 and September 2024, 66.2% of the users were female and 33.8% were male. GSMA analysis shows that among both female and male AVA users, most of the questions were asked by those under the age of 24 years. This also aligns with usage of the 667 service, where 27.3% of the users were below the age of 18 and 44.4% of the users were between 18 and 24 years old.¹⁴

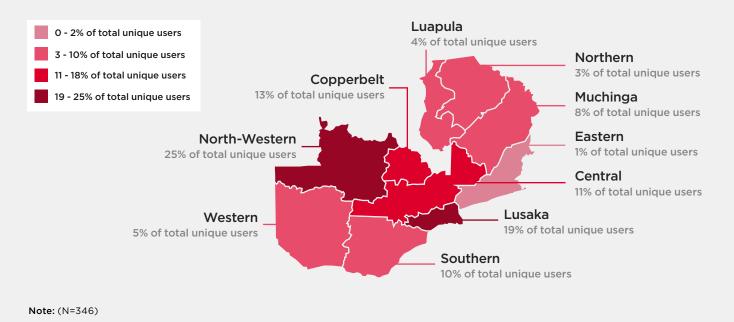
Figure 9

Distribution of unique users¹⁵ per day by age group



Figure 10

Distribution of unique users per day by province



13. All Viamo user data is self-reported by users when they first call the 667 service. This data has not been validated by Viamo or GSMA and might be skewed due to practices like phone sharing.

14. Based on total data between 2015 and September 2024.

15. Does not include multiple calls by the same user.



Box 2 The average AVA user in Zambia

The data shows that the average AVA user in Zambia is female, between the ages of 18 and 24 and tends to live in the Lusaka province (a mix of urban and rural areas) or North-Western Province (mostly rural areas). While younger users are typically more likely to adopt digital and mobile technologies, the data also suggests that GenAI products present an important value proposition for female users over traditional information services.

Female users engage more frequently and meaningfully, measured in terms of the number of follow up questions on AVA, compared to male users. AVA offers a safe avenue for women to ask questions, especially around issues like health, who may not otherwise have alternatives to ask these questions in their communities. Female users also accounted for 60% of the questions asked relating to the sustainable development goals (SDGs).

How often are people using AVA?

The data provided by Viamo shows that women in Zambia use AVA more frequently than men and ask more questions in general. The followup rate from the first question asked on AVA is 35%, with women and users between the ages of 18 and 24 more likely to ask follow-up questions. This is an interesting finding, given the gender

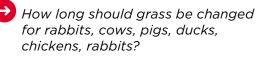
divide in accessing digital services is generally skewed towards male users. It may indicate a high level of trust and safety among women around using AVA, as well as its ease of use and accessibility. Examples of follow-up questions asked by AVA users are provided in Box 3.

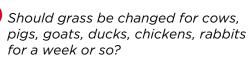
Box 3

Examples of follow-up questions on AVA

Example of follow-up questions related to agriculture:

Is grass used as bedding for ducks, pigs, goats, cows, sheep, rabbits and chickens?





Example of follow-up questions related to health:

What are the main symptoms of HIV positive? If I am HIV positive, how can I know that I am HIV positive?

What can I do if I find out that I have any of these symptoms that you mentioned?

How can I get tested for HIV? If it is positive, how long until I can start taking those medications?

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What are users asking AVA?

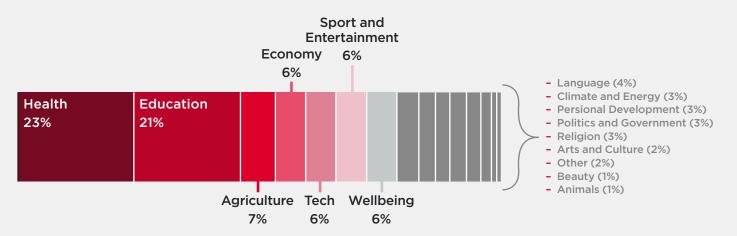
Of the questions analysed, 23% related to health,¹⁶ 21% related to education,¹⁷ and seven per cent related to agriculture, as shown in Figure 11. Many health-related questions focused on sexually transmitted infections and sexuality. Education-related questions focused on language and history, and agriculture-related questions focused on planting and animal husbandry.

While the themes of health, education and agriculture are also dominant in the types of key messages people listen to on the 667 service,

it is interesting to note the nuances among the questions asked by users, especially on issues around gender and health. The IVR content on the 667 service is pre-recorded and approved by government agencies before it is made available to callers. In contrast, the content available on AVA is much broader, although Viamo has guardrails in place to prevent questions related to sensitive issues including violence, hatred and discrimination, among others.

Figure 11

Distribution of topics queried by gender



Note: (N=730)

^{17.} Education topics include astronomy, biology, chemistry, civics, education, general knowledge, geography, geology, history, mathematics, philosophy, physics and science.



^{16.} Health topics include emotional well-being, health, mental health and psychology.

Why do people use AVA?

Based on in-country interviews conducted by GSMA with AVA users, four key benefits of using AVA emerge:



A number of users note that they find the information provided by AVA trustworthy. In addition, users are more comfortable asking AVA questions compared to their peers, as the answers may vary depending on who they ask. Further, users' contact numbers cannot be tracked to specific issues, which creates a feeling of safety among users who share their phones within a household. Users compared using AVA to using a search engine online, with the benefit of not needing mobile data or Wi-Fi to access AVA. Users also highlighted the usefulness of being able to ask follow-up questions.



Availability of detailed information

A distinct benefit identified by users is that AVA provides clear and summarised information. This differentiates the product from search engines that provide a lot of information and do not allow for specific clarification. Many of the users interviewed either use or plan to use AVA for school or work, and for such users, a key advantage is that they can play the answers aloud to other classmates. Users also appreciate that they can use AVA to access information on a wide array of thematic areas and topics from a basic mobile phone.



Ease of searching

AVA is more cost-effective than other search options that may be online or require access to physical spaces or books, which could be expensive or difficult to access. While free usage of AVA is limited to a certain number of phone calls per month, after which calls are chargeable, users can utilise that airtime effectively or opt to pay the marginal fee linked to the product afterwards.



A number of interviewees noted that they are able to ask AVA questions that they may not be comfortable asking other people, specifically related to health (both mental and physical) questions and best practices. Users can ask questions that are considered taboo or awkward. This may also be an important value proposition for female users of AVA, who may not otherwise have safe avenues to ask these questions in their communities.

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Further considerations to scale AVA beyond Zambia





Viamo has positioned AVA as a unique offering at the intersection of GenAI and international development. At present, few other organisations offer an on-demand voice-first GenAl information product through voice calls. Viamo's strength is its ability to co-develop and mediate content for a range of customer segments. Viamo's competitors in this area are other aggregator platforms as well as social media platforms, although these require internet connectivity and cannot be accessed over voice calls.

Unlike the content used by Viamo for the 667 service, which is curated from different sources and undergoes a quality control process, Viamo does not have full control over the quality of content available on AVA. While Viamo filters content to decline questions which are deemed either harmful or sensitive, users may still come across content which may not be safe for consumption, especially for younger users. As the product scales from pilot mode to a full offering, content moderation, accuracy of speech technology, GenAl skills (prompt engineering) and impact on end users are all areas that Viamo is considering for further development.

Content moderation:

Viamo co-develops content for its products with client partners and other agencies. A related consideration is moderating the content accessed by AVA's users. Given the cultural, religious and ethnical diversity within most LMICs, it is important to filter content to safeguard its sensitivity, especially around topics like health, gender, financial inclusion and education. The platform must also be monitored to remove any harmful or explicit content that may adversely impact young users. At present, Viamo have engineered prompts in a way that users will not receive answers if they ask questions pertaining to certain sensitive issues. Questions asked to AVA are transcribed using natural language understanding¹⁸ to understand their intent, and harmful or sensitive questions are discarded. These guardrails are defined in collaboration with Viamo's clients.

Accuracy of speech technology:

The AVA model is based on a speech-to-text conversion system, converting voice speech from the user to text that can be understood by ChatGPT. Once ChatGPT provides a response, it is once again converted to voice format and relayed back to the user. The quality of the speech technology available for speech-totext and text-to-speech engines, especially in local languages by small start-ups, is a concern. As high-quality speech technology is only available in a few languages, this delays Viamo's rollout of AVA. It is also important to assess the accuracy of these engines, as invalid or irrelevant responses may lead to users disconnecting the call or not using AVA again.

GenAl skills (prompt engineering):

AVA's current system relies on callers being aware of the type of questions that they need to ask to get the most relevant and useful response from the AI. Viamo uses prompt engineering at the back end to ensure that responses on the platform are contextual and culturally sensitive. While AVA provides some guidance to callers to modify their questions or delve deeper into specific topics, the system still needs to teach the user to give specific prompts when they call. Users unfamiliar with giving voice commands to a machine may be inhibited from asking any follow-up questions. There is an opportunity to conduct capacity building for users at the community level to empower them to make the best use of AVA.

Impact:

As AVA expands its geographical footprint, it is important to reflect on how to measure and enhance impact. One aspect of this would be to understand how users are currently using AVA's content and how this information may be leveraged to inform capacity building and training efforts. Another aspect would be to identify the intended outcomes of AVA in the short and long term to determine the parameters and tools most relevant to measuring impact. These may include comparative studies between users of the 667 service that use AVA and those that do not use AVA, behavioural change assessments, and a measurement of outreach within Viamo's target audiences.

18. Natural language understanding is the ability of computers to understand and analyse human language in the form of text or speech.



Moving forward



Viamo hopes to further strengthen AVA by addressing existing gaps in service deployment, as described in the previous section. Viamo is also scaling its voice-first GenAI product beyond its MNO partners by collaborating with international development organisations, businesses and research institutions across LMICs. These partnerships should boost the quality and reach of its GenAI for development initiatives.

While this case study highlights AVA's pilot in Zambia and its key learnings, AVA has since been launched as a pilot in several countries across Africa and Asia. As Viamo seeks to further scale AVA, unlocking local language capabilities and supporting highly localised versions of the product are two key areas of focus.

Monetisation of AVA:

Viamo relies on partnerships with MNOs who provide them with network access to deploy AVA. While Viamo users receive a number of free calls per user to access the 667 service, each AVA query generated and processed through the system has an associated cost for Viamo. Further, there is a conversation cost for Viamo, based on the number of questions asked per conversation. It is important to consider the magnitude of these costs and investigate the impact of repeat users of AVA for Viamo, compared to its existing services. Viamo must build a key value proposition to utilise AVA repeatedly, as the organisation aims to expand AVA's geographical footprint. The use of GenAI for AVA has already helped Viamo drive the engagement and retention of its subscribers.

Local language capabilities:

Deploying AVA in local languages will be a focus of Viamo going forward. The AVA pilot in Zambia was only available in English, which limited its potential impact on target user groups. Going ahead Viamo intends to expand its library of local language content, but the cost of digitising languages is high and not Viamo's core expertise. Speech technology in local languages is also limited. Voice services require high quality speech technology compared to text services and Viamo is cooperating with speech technology companies to bridge this crucial gap. In parallel, numerous organisations have launched initiatives¹⁹ to develop these capabilities in local languages but the impact of these initiatives must reach the wider sector. To develop localised and domainspecific versions of local language information, Viamo will also benefit from partnering with local governments, research and civil society organisations to digitise localised information and improve user retention.

Box 4

Developments in AVA since the 2023 pilot in Zambia

Since the initial AVA pilot in Zambia, Viamo has launched additional AVA pilots on local versions of its Viamo Platform in Botswana, DR Congo (French), Ghana, Nigeria and Pakistan (Urdu). Viamo has also deployed its sector-specific voicefirst GenAI product, Ask An Expert (AAE),²⁰ with partners in India, Kenya, Niger, Pakistan, Sudan and Tanzania. Viamo aims to eventually roll out AVA across its geographical footprint.

Viamo has further developed and fine-tuned the user experience and back-end functionality of AVA and its voice-first GenAI capabilities, addressing some of the challenges faced during the pilot:

 Content guardrails: Viamo has implemented automated moderation to filter harmful or sensitive questions and to ensure user interactions on AVA are safe and appropriate.

- Risk mitigation: Viamo has leveraged advanced tools to evaluate generative AI models and mitigate risks such as hallucination, by focusing on understanding user intent and providing accurate responses to questions.
- Specialised content generation: Viamo has adopted tools to restrict the data used for response generation to specific content provided by sectoral partners, such as international development organizations.
- Personalisation of responses: AVA and AAE have been trained to ask clarifying follow-up questions to better understand users' context and circumstances and then deliver advice that is more tailored and relevant.

Examples of these initiatives are <u>Lelapa AI</u> and <u>Masakhane</u> in Africa, <u>Technology Development for Indian Languages</u> (TDIL) by the Government of India and <u>AI for Thai</u> in Asia. Initiatives by international development organisations and not-for-profit organisations include the <u>AI4D Africa</u> by IDRC, UK FCDO, and SIDA, and <u>Common Voice</u> by Mozilla.
Ask An Expert is Viamo's second GenAI product, designed for sector-specific use cases where in-depth expertise is preferred by users over broader topic coverage.



Box 5

Key learnings for tech innovators and organisations leveraging GenAl solutions for impact in LMICs

- Identifying the key value proposition of GenAl for users at the last mile: GenAl can significantly enhance existing voice-based products, but organisations must clearly define the value addition of GenAl to their subscribers, as well as assess the feasibility of implementation. The integration of GenAl is an undertaking that requires significant investment, including a workforce with the relevant GenAl and technical skills. GenAl tools should be launched only once there is sufficient traction in terms of access to users.
- Tailoring GenAl programmes to meet customer needs: To maximise the impact of GenAl solutions, it is critical to build rich user profiles that are representative of their preferences and interests. This can inform effective programme design as well as contribute to robust impact measurement. Efforts must also be made to leverage local language models to effectively target populations in their local languages.
- Moderating and monitoring GenAl-enabled content: Content developed by GenAl models must be moderated and monitored to ensure its accuracy, quality and relevance. The content shared should reflect the social and cultural norms of its users while being safe for consumption by subscribers from different age groups and sensibilities. The content available on GenAl platforms like ChatGPT is

wide ranging but heavily trained on data from high-income countries. Organisations looking to develop these kinds of tools in LMICs should explore avenues to access high-quality, localised information (such as news, local agriclimatic conditions, or health information) to integrate with content from GenAI platforms.

- Developing GenAl skills among last mile users: The usefulness of GenAl solutions depends on the accuracy and relevance of commands provided by the user. Given the low levels of digital literacy and digital skills among last mile populations, it is particularly important to build skills in these groups in the form of support with prompt engineering as well as building awareness and trust about GenAl tools in general.
- Measuring the impact of GenAl solutions for impact: As the application of GenAl is comparatively nascent in the international development sector, there is a lack of uniformity in measuring its impact on users. Organisations must develop holistic impact parameters to understand the impact of integrating GenAl platforms in their solutions, while also considering the potential misuse of Al among their users. Building evidence on the benefits as well as risks of using GenAl can have a significant impact on its development and deployment at scale.

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