

June 2025

The future of last mile distribution: Powered by Artificial Intelligence?

Artificial Intelligence (AI) is not a new technology but it took a very long time to mature. Back in 1959 researchers coined the term “machine learning” to refer to computers being trained to play board games. However, it was only in 1997 that computers had sufficient computing power to beat the world chess champion. A computer built by IBM achieved this feat in a highly publicised match that shocked the world, demonstrating that computers could imitate or even outperform humans.

In 2019, [GOGLA and the Beyond the Grid Fund for Africa \(BGFA\)](#) showcased some initial ideas for using AI to help PAYGo providers better predict the repayment behaviour of customers buying off-grid energy appliances on credit. Despite the interest these ideas generated, we still have only anecdotal evidence of how AI has been adopted in the last mile distribution sector.

For a long time, many people perceived AI as a technology that only trained professionals can deploy. But after OpenAI’s launch of ChatGPT in late 2022, closely followed by Google’s Gemini and Microsoft’s Copilot, these “large language models” (LLMs) attracted hundreds of millions of weekly users worldwide. People use these tools, for example, to quickly look up information or to generate text and images.

Potential benefits of AI for last mile distributors

1. Reducing **operational inefficiencies**
2. Making better **informed decisions**
3. Enhancing **customer experiences**

A 2024 survey by [EY and Devex](#) of thousands of international development professionals showed a renewed interest in this technology and a collective optimism about how AI can help us realise the Sustainable Development Goals (SDGs). Around 80% of respondents believed AI will directly contribute to SDG 6 (universal access to clean water and sanitation) as well as SDG 7 (universal access to affordable and clean energy). These goals are particularly relevant to many last mile distributors (LMDs), who serve communities that are lacking access to clean energy and water.



Photo credit: BBC Storyworks

Adoption of AI and its relevance in solving challenges in low-income countries

As AI becomes more accessible, last mile distributors and innovators across low-income countries are beginning to explore how it can help solve familiar challenges, from supply chain inefficiencies to customer engagement.

AI adoption among GDC members

Our own small survey among last mile distributors in the GDC membership showed that almost half of the 13 respondents already use AI on a weekly or even daily basis, most likely the large language models mentioned earlier. Respondents suggested that this technology has the potential to reduce inefficiencies in their supply chains by, for example, automating repetitive tasks and workflows. As one respondent said: “LMDs run on small margins, meaning improved cost efficiencies could significantly improve their chances of profitability, and thereby impact more underserved customers [by providing them with life improving products such as solar lanterns, clean cooking stoves and water filters].”

Others rightly suggested that they could use AI to extract insights from the large amounts of data they collect from their customers. LMDs also expect AI to offer better and more personalised customer experiences. And lastly, LMDs are excited about the technology’s ability to create attractive marketing visuals which they cannot otherwise easily afford.

Sector interest in AI adoption

Various AI development programmes for the African continent, such as those of the [UK government](#) and the [GSMA Innovation Fund for Impactful AI](#), aim to help local entrepreneurs to develop local AI solutions for local problems. There has been a notable interest in the use of AI for the agricultural sector, which represents almost half of the 90 AI use cases that [GSMA](#) found across the African and the South Asian continents in 2024. Examples include early warning systems that alert smallholder farmers about extreme weather events or a conversational chatbot that offers them real-time personalised advice in their own language. The agritech use cases are followed by AI for climate tech and, to a lesser extent, health tech, with examples such as [Qure.AI](#) in India, which has developed an AI-enabled tuberculosis diagnostics tool. Use cases of AI in fintech are unsurprisingly also emerging rapidly, with examples such as [Boost](#) and their AI-supported know your customer (KYC) and lending process for merchants across Southeast Asia.

Photo credit: Bopinc



The need for local AI capacities and bespoke solutions

A 2024 position paper authored by [GIZ](#) and others claimed that AI can support our fight against climate change in low-income countries. However, for AI to contribute to inclusive development in these countries, it needs to address their unique and pressing, socio-economic and environmental challenges. According to the [World Economic Forum](#), social innovators in Africa use AI proportionately less than others: approximately 50% of African innovators compared to the global average of 70%. Skills gaps, and the low levels of public and private investment to support AI startups across Africa and Asia, also undermine the progress that has been made so far.

In mid-2024, the [African Union](#) drafted its strategy for ensuring the continent can use AI for its own development and prosperity. This was reinforced by a [declaration](#) signed by members of the African Union at the close of the 2025 [Global AI Summit](#) in Kigali.

Limitations of AI adoption in African countries

Recent advancements in AI have predominantly been driven by Big Tech in the USA due to the extensive datasets and robust computing resources they can access and afford. This means that popular American products such as ChatGPT and Gemini are likely to reflect the biases and inaccuracies present in western literature and other media they were trained on. Ensuring that LLMs are trained on locally relevant data will be critical for a continent like Africa to harness the full potential of AI. But there is still a long way to go, considering that only 0.02% of total internet content is in African languages and (as of 2023) only 2.5% of the global AI market comes from Africa ([GSMA, 2024](#)).

The AI industry is still in its infancy and there is limited evidence for the technology's potential for the last mile distribution sector. So this publication aims to highlight some AI use cases that have already been tested, while providing guidelines for exploring and using this emerging technology cautiously.

What is AI?

AI is the ability of a machine (or computer) to perform certain human tasks through learning and automation. Algorithms serve as the backbone of every AI model. Similar to a cooking recipe, these provide the instructions for processing and analysing data to generate the desired output. We can differentiate between predictive AI and generative AI models:

Predictive AI

Predictive AI is a longstanding field within AI and is designed to assess historical data, discover patterns, observe trends, assess risk and use all that information to make forecasts. According to GSMA, most users in Africa currently use predictive AI.

Generative AI

Generative AI (or gen AI) is a newer field and involves generating new data, text, images or other types of media based on user inputs, referred to as prompts. Gen AI solutions like ChatGPT rely on large language models which are trained on substantial volumes of data, mostly collected from the internet. More recently, agentic AI tools have drawn attention because of their ability to use content generated by LLMs to complete complex tasks autonomously. Agents can, for example, not only tell you the best time to travel somewhere given your work schedule and weather forecasts but can also book you a flight and a hotel.

Opportunities and challenges for last mile distributors to adopt AI-enabled solutions

Our 2025 survey showed varied AI use among GDC members. One popular, if slightly controversial, application is using tools like ChatGPT to write grant proposals. As one LMD shared: “For five years, I struggled to secure funding, until I used AI tools this year and finally landed a grant.”

Last mile distributors can explore a limited range of AI solutions

Various digital service providers in the LMD sector use AI to enhance their offerings. For example, the team behind [PaygOps](#) built an in-house AI solution to optimise the ID card scanner on their mobile app. This allows PAYGo customers with low quality mobile phone cameras to still enjoy the convenience of having their personal data verified with a simple picture.

They also incorporated AI to make it easier for LMDs using their PAYGo software to customise workflows. This was previously only possible by hiring PaygOps consultants, which came with an additional charge. [TaroWorks](#), a mobile app provider supporting field operations, uses AI for the same purpose.

Many of the digital service providers listed in the GDC’s [Digital Services Catalogue](#) are exploring the use of AI so it is likely that LMDs have benefitted from these advancements, perhaps without even realising it.

For most LMDs, gen AI tools like ChatGPT and new entrants like DeepSeek are often the first type of AI they interact with. These tools are widely known and many offer free subscriptions. They are generic solutions that help solve general problems, useful only when contextual awareness isn’t needed or when users can provide relevant inputs and corrections. Users can also create custom GPTs (generative pre-trained transformers) tailored to narrower needs.

If LMDs need to address specific problems, they will rely on the few specialised AI providers out there – although we can expect to see many more specialised AI applications in the years to come.

Overview of AI use cases for LMDs

AI can potentially support all LMDs’ operational tasks, from market research and inventory management to sales agent training. In the following sections we present 12 use case applications that might be of interest to LMDs, each highlighting the specific benefits they support.

AI’s bias in representing diversity

These AI-generated images depict people from Nigeria, Vietnam, and India, but fail to reflect each country’s true diversity, highlighting how biased training data can lead to limited representation.



Photo credit: Ernest & Young

01. Demand forecasting and inventory management

⚙️ Operational efficiency

🔗 Decision making

👤 Customer experiences

AI can help LMDs optimise their inventory levels to avoid stockouts or overstocking by predicting customer demand.

The e-commerce giant Jumia uses AI solutions customised by [Sprinklr](#) to analyse customer data and predict demand, thus improving customer experience. By automating routine tasks that would otherwise have to be done manually, Jumia reported 90% of staff time was saved.

02. Customer research and feedback analysis

⚙️ Operational efficiency

🔗 Decision making

👤 Customer experiences

Customer insights are crucial for LMDs to inform their product selection and marketing, sales and after-sales activities. AI can help reduce the time spent on analysing qualitative data that LMDs collect and identify valuable insights or patterns and interconnections.

[Apurva.ai](#) developed a bespoke gen AI platform to support social enterprises to make sense of vast amounts of data they are collecting from the field. It lets you analyse recordings of in-person interviews or telephone calls with customers and generate visually attractive insight reports.

03. Customer support

⚙️ Operational efficiency

👤 Customer experiences

Gen AI tools like ChatGPT can help LMDs draft responses to customer inquiries and save time. On a larger scale, AI chatbots can provide LMD customers with 24/7 assistance on common post-purchase inquiries. They can also guide customers through troubleshooting steps for common product issues. AI-powered chatbots are different from rule-based chatbots because they use machine learning to understand and respond to more complex queries,

instead of operating on predefined rules and decision trees. It is also easy for them to support multiple languages.

[Chatbase](#) is an intuitive chatbot builder that companies can train on their product catalogues and FAQs. It can be added to the company's website or made available to its customers more conveniently through WhatsApp or Facebook. In 2024, the GDC used Chatbase to make it easier for training participants to look up relevant training content.

Photo credit: Bopinc



04. Market and customer identification

Decision making

By combining product, pricing and payment data with geographical data, AI can present a map with predictions for the most promising regions for a LMD to enter next. This data might include distance of households from the energy grid, access to mobile money agents, population density, solar energy potential and weather.

[Atlas AI](#), in partnership with Engie Energy Access, uses machine learning to map energy poverty and prioritise areas for energy infrastructure investments in Kenya.

[Dalberg Research](#) applies machine learning tools to geospatial databases and sales performance data shared with clients. This enables a detailed understanding of high potential sales areas, helping LMDs strengthen their market expansion plans.

05. Remote product performance monitoring

Operational efficiency

Decision making

Customer experiences

AI models can be trained to forecast equipment failures, helping to optimise proactive maintenance schedules and minimise downtime. This can be amplified by equipping energy appliances with sensors that, for example, let LMDs or their customers monitor the frequency of product use or the solar panels' output.

[Innovex](#) developed an Internet of Things-based digital tool called REMOT for monitoring solar-powered energy systems. Support from [Efficiency for Access](#) helped enhance its functionality, for example adding AI-informed routine maintenance for solar home systems.

Photo credit: Bopinc



06. Product-service bundles

Customer experiences

Customers can be provided with AI-enabled services to enhance their experience with products purchased from LMDs, for example, spray advice for pesticides.

In India, [Plantix](#) has an app that uses computer vision and AI to recognise over 800 crop symptoms with over 90% accuracy. This outperforms human experts, who typically achieve 60–70%. The app helps farmers minimise crop losses and reduce unnecessary pesticide applications.

07. Route optimisation

⚙️ Operational efficiency

👤 Customer experiences

AI can suggest optimal routes for product delivery so that riders can serve more customers in a day. When LMDs operate in territories affected by extreme weather events, AI can suggest which roads to avoid based on local weather forecasting.

[mPharma](#) is a healthcare startup in Ghana that uses AI to optimise drug distribution networks, ensuring timely delivery of essential medicines to rural clinics.

[TradeDepot](#) in Nigeria uses AI to analyse traffic patterns, weather conditions and fuel efficiency to identify the most efficient delivery routes. This allowed the company to lower the carbon footprint of its delivery operations.

08. Sales agent training and assistance

⚙️ Operational efficiency

👤 Customer experiences

AI can offer personalised and more engaging learning experiences to LMDs' sales agents. It can also act as a conversational assistant that advises agents in their own languages on how to improve their performance.

[Last Mile Technologies](#) aims to help LMDs create their own AI chatbots. These help agents target or follow up with customers more effectively by sharing customer data that was previously not (easily) accessible to agents.

More about this in the trailblazer stories below.

09. Customer credit assessments

⚙️ Operational efficiency

🔗 Decision making

👤 Customer experiences

AI can help LMDs assess the creditworthiness of potential customers, even those without a formal credit history, by analysing alternative data sources such as mobile money transactions. This enables companies to offer, for example, PAYGo financing options to a wider range of customers. Once credit has been provided, AI can predict customer repayment behaviour and identify the best interventions for customers at risk.

[M-KOPA](#), which provides credit to millions of customers in sub-Saharan Africa, uses Microsoft Azure software to track the health of its lending portfolio. This has helped the company improve its loan performance.



10. Branding and creative marketing

 Customer experiences


AI can produce logo designs and marketing copy for small businesses that would otherwise have to hire external creative agencies. AI can also automate communication tasks such as generating or publishing social media content.

[Adobe Firefly](#) is a generative AI tool for creating and editing images. It can speed up the design process by generating visual content, enhancing graphics and automating repetitive design tasks, so boosting productivity.

Other popular image generation tools are Midjourney, Gemini and ChatGPT.

See the trailblazer stories below for more detail.

11. Carbon finance


 Operational efficiency

AI can collect and analyse data on the usage of clean energy products to measure their impact on health, the environment and livelihoods. This data can be used to generate carbon credits, which can be sold to offset the cost of the products and make them more affordable to low-income communities.

[Greenplinth Africa](#) is a clean cooking stove programme in Africa that partnered with CarbonAI, whose smart meters and software help monitor stove usage and verify greenhouse gas reductions and carbon credit claims.



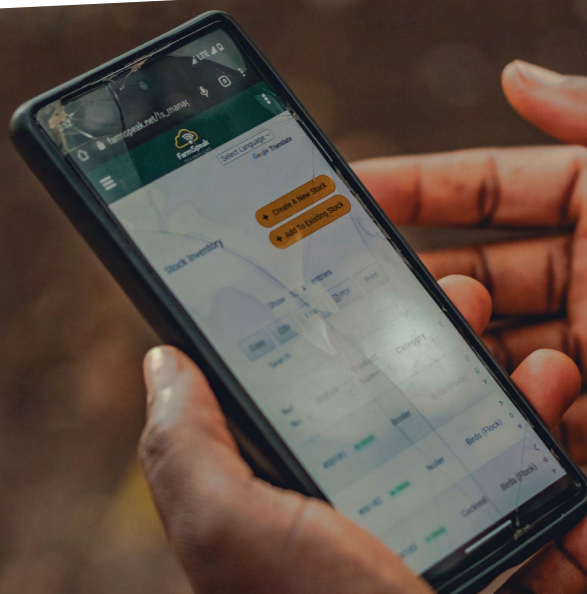
12. Accessibility and inclusion

 Operational efficiency

 Customer experiences

Computer vision in combination with text-to-speech software can be used to read out the terms of a PAYGo contract to customers who are illiterate or have poor eyesight.

Photo credit: Bopinc



Summary of AI use cases

This table provides a condensed overview of the 12 AI use cases featured in this spotlight. It captures the core application, benefits, and how commonly each use case appears across the sector.

AI use case application	Possible benefits for LMDs			Assumed adoption rate in the sector
	Reduce operational efficiencies	Make better informed decisions	Enhance customer experiences	
01. Demand forecasting and inventory management	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
02. Customer research and feedback analysis	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
03. Customer support	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>
04. Market and customer identification	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
05. Remote product performance monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
06. Product-service bundles	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
07. Route optimisation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
08. Sales agent training and assistance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
09. Customer credit assessments	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
10. Branding and creative marketing	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input checked="" type="radio"/>
11. Carbon finance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="radio"/> <input type="radio"/> <input type="radio"/>
12. Accessibility and inclusion	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="radio"/> <input checked="" type="radio"/> <input type="radio"/>

Using AI responsibly

When people are shown the capabilities of gen AI services such as image and voice generators, which get better every year, they respond in different ways, from excitement to apprehension. Some fear that AI will be taking their jobs. In 2023, the [Schwartz Reisman Institute for Technology and Society](#) studied global attitudes toward AI. They found that Indians and Kenyans are the most likely to feel positive about AI. Many believe AI will make their futures better. Among Kenyans, only 11% have a negative view of AI, much less than Americans and Europeans. People's attitudes are obviously influenced by the amount of knowledge they have about the technology. Therefore, while there is a lot to be excited about, it is good to be mindful of the risks and limitations of AI.

Recommendations

We recommend that both new and existing users of AI practise caution, particularly when using free services. First, you should always review the data privacy clauses to ensure there is no risk of leaking any personal data or intellectual property. Some AI providers might keep your inputs and the documents you upload to train their models.

Second, when creating content using gen AI models, it is important to consider the risk of unintentionally reinforcing stereotypes about certain groups of people. When tasked to create an image of a Ugandan woman, for example, a gen AI model might produce a picture showing a rural woman wearing very traditional clothes and doing household chores, rather than a businesswoman in an urban environment. (Tip: ask the model to regenerate the image by sharing more specific instructions.)

Third, it is important to be careful when using predictive AI models to inform business decisions such as which customers to provide credit to and which not. The benefit of algorithms is that they can help analyse many different data points to formulate advice on creditworthiness. However, these decisions may lead to unintended consequences such as racism or other forms of discrimination. If this happens, it is important that you can explain how the algorithm generated the advice. You should never blame the technology; you will need to be accountable yourself. (You can read more about [explainable AI](#) here).

A common way to ensure responsible use of AI is the human-machine-human approach, in which human users provide the necessary oversight. Humans formulate the input, AI creates the output and humans review this before sharing it with others. Early in 2025, [Bopinc](#) developed its own AI policy based on this approach. It is shared on their website so that others can build on it as they develop their own policies.



Photo credit: Bopinc

Trailblazer story

AI-enhanced agent support

“If AI becomes an assistive technology to sales agents, it lets them focus on what they are good at which is building and retaining customer relations.”

About the company

After leaving [Baobab+](#), where he was the Chief Technology & Data Officer, David Hugues launched a venture focused on solving common challenges faced by PAYGo providers in the energy access sector. One solution is an AI assistant that helps sales agents access customer data and field insights via a WhatsApp chatbot, or by phone for those without internet access. By making information easily accessible, agents get a chance to learn on the job and improve their performance, while LMDs enjoy the benefits of this process being largely automated. In 2025, David shared a demo on [LinkedIn](#) and started piloting the AI assistant with a last mile distributor.

What is exciting about these AI solutions?

While chatbots for agents are relatively new, companies like [Viamo](#) have pioneered chatbots for marginalised groups. In 2023, Viamo built their own ChatGPT-based chatbot called Ask Viamo Anything (AVA). AVA makes internet content available via text-to-voice for people with basic phones without internet. In the first ten months of their AVA pilot in Zambia, over 9,000 callers had 84,000 questions answered. For many callers, including women, AVA soon became more popular than Viamo's previous non-AI enabled platform to look up information about, for example, cholera prevention. Viamo plans to roll out AVA in 19 other countries. This pilot has shown the possibility for Zambia to leapfrog traditional internet search methods.

Another company that uses LLMs like DeepSeek and ChatGPT to build contextually relevant AI agents is CDIAL in the USA and Nigeria. Their [Indigenius](#) app lets enterprises build their own AI customer support agent optimised for telephone conversations in over 13 African languages, including Arabic, Hausa, Igbo and Kiswahili.

Opportunities for other LMDs to engage

David Hugues is looking for LMDs that are interested in piloting the chatbot solution with him. If LMDs want to try out free AI solutions first, [Notebook LM](#) is a useful tool for training purposes. LMDs can upload their agent training and support materials, after which Notebook LM generates audio-based learning modules that sales agents can interact with by asking questions. It supports multiple languages, such as English, French, Hindi, Spanish and Kiswahili. Notebook LM also lets agents look up information more quickly, similar to ChatGPT.



Photo credit: Vodafone

Trailblazer story

AI-generated marketing content

“Before, my posts were just product photos and basic text. Now, AI helps me create engaging reels, catchy captions, and better-structured content.”

About the company

Early in 2024, companies like [Safaricom](#) and [Supa Loaf](#) featured AI-generated visuals on billboards across Kenya, exposing people to this kind of imagery at scale for the first time. It was a bold move by Safaricom, aiming to position AI as a tool for creative excellence, but some Kenyans claimed the brand may lose authenticity when not showing real Kenyan people. It is possible that LMDs might face the same response if they choose to switch to AI-generated content, but there is a first time for everything.

[TechnoServe](#) helps small businesses harness AI to grow their brands and create engaging marketing content. One such business owner is a jewellery maker in El Salvador named Emilia Figueroa Hernández who had lacked the digital and strategic marketing skills to promote her products online, but now uses AI to streamline content creation, automate planning, and generate compelling captions and responses. Her improved content has led to more customer attention, engagement and sales.

What is exciting about these AI solutions?

Through their AI upskilling programme, TechnoServe showed that, with the right tools, even the smallest businesses can compete, innovate and thrive as countries transition to a digital economy.

Opportunities for other LMDs to engage

To implement AI marketing successfully, LMDs must invest in training and upskilling their marketing teams, who should be well-versed in AI tools and their applications. Training programmes and certifications can build the necessary skills. TechnoServe, for example, provides AI training to thousands of small businesses in Latin America through its online [CRECE Academy](#). They stress the importance of “not just teaching them to use AI, but teaching them how to apply it to real business challenges.

A practical way LMDs can enhance creativity and reduce costs is by using AI logo generators like [Fiverr Logo Maker](#). These tools ask a few questions about your business and style, then generate a range of logo options.



GETTING STARTED

Exploring the opportunity to adopt AI solutions for your last mile distribution business

Adopting AI can feel overwhelming, especially for smaller teams with limited time and resources. To help you get started, we have outlined a few key questions to guide your thinking and identify where AI might bring the most value to your last mile distribution business.

Is the use case clear?

✓ Familiarise yourself with AI and identify your first use case

If you are new to AI, you could start with piloting AI solutions at a small scale to familiarise yourself with the technology and evaluate how your staff, sales agents and customers interact with it. This should be in an area of the business that permits experimentation (and failure!). Using AI to inform customer credit assessments is probably not a safe use case to start with; instead you could explore using AI to transcribe and summarise team meetings or to automate routine tasks like email communication and data management.

If your organisation is new to AI, adopting the technology is not something that should be rushed. You could start by identifying an internal AI champion who will conduct a workshop to introduce employees to the basics of AI. They should provide hands-on training on free gen AI tools such as ChatGPT, whilst emphasising the importance of ethical and responsible use of the technology. This way you can lay a strong foundation before considering more advanced integrations of AI technologies in your organisation.

What areas of your LMD business could benefit from AI?

Prompt engineering

When generating images or text, especially when these are used in contexts the LLM models are less familiar with such as rural African markets, it is important to provide detailed instructions. This is often referred to as prompt engineering. The more specific your instructions or queries are, the more likely that you are to achieve a satisfactory outcome that eliminates bias and inaccuracies. A common prompt structure specifies (1) the role assigned to AI, its task, the context of the task and the desired output format along with examples.

Here is an example: **[Role]** You are an experienced and successful non-profit fundraising specialist. **[Task]** Create a list of ten donors that already support last mile distribution companies. **[Context]** We are a medium-sized business in Ghana that delivers clean energy solutions to rural households across Ghana. The biggest challenge our company faces is accessing working capital for our stock. **[Format]** Here are some donors we have already used: Donor X provides grants of up to \$100,000 to last mile distributors in West Africa. Create your list of other donors in a similar format.

Is it feasible?

☐ Determine what AI can and cannot do

In a 2022 [blog post](#), the developers of the popular app Duolingo describe how they create their language courses in four stages: 1. curriculum design, 2. raw learning content creation, 3. quiz creation and 4. lesson personalisation. In each stage, the developers collaborate with AI. However, the stages that require scale and personalisation rely more on AI, whilst the earlier stages involve more of their in-house experts. Simply put, humans are still better at developing the learning content, whilst AI is more capable of personalising the content; ensuring each learner is presented with exercises tailored to their specific needs at the right time. Similarly, you should consider which tasks you can confidently give to AI. Ironically, Duolingo received a lot of negative publicity after their recent announcements of becoming an “AI-first” company, which involves gradually stopping the use of contractors’ use for work that AI can handle. Duolingo users are concerned about job displacement and the quality of AI-generated learning materials.

When the agri-fintech company [Apollo Agriculture](#) started using AI to automate their data-driven lending decisions for farmers in Kenya and Zambia, they realised it was still critical to manually validate the farmer data they collected. This was needed to ensure their AI models only used high-quality, verified information. Once they have verified the data, Apollo’s proprietary AI model then develops detailed credit scoring profiles. This again shows the need for humans and technology to interact based on the unique capabilities of each. The AI-enabled credit assessment tool allowed Apollo to significantly lower their operational costs, making it feasible for them to offer small loans at scale. (Find out more about Apollo’s learnings in the [GSMA blog post](#).)

For LMDs to adopt their own (predictive) AI solutions such as Apollo’s, they would need to operate at scale, with vast amounts of data available for machine learning processes.

What tasks can you realistically transfer to AI based on its capabilities?

☐ Evaluate whether AI is appropriate for the market you operate in

If using AI for last mile distribution, you should consider things like local languages, offline compatibility and low data usage. [Digital Green](#) launched its AI-powered chatbot Farmer.Chat in 2023, which is designed to provide real-time, personalised agricultural advice to smallholders. This reached 125,000 users with 1.5 million messages by early 2025, but the company has learned a lot about ensuring it is adopted by potential users. For example, many women in India initially hesitated to use the chatbot due to a lack of awareness about chatbots and their potential, a lack of confidence in their ability to navigate them or a lack of trust in the responses given by the chatbot. To build their customers’ digital confidence, Digital Green introduced the product to users in groups, such as women’s self-help groups and farmer producer organisations. Regular feedback loops with the women helped Digital Green refine the chatbot’s responses. The developers also actively probed the chatbot with adversarial prompts to uncover gender bias, blind spots and harmful stereotypes. These systematic testing procedures are important because incorrect or even harmful answers can quickly erode trust and confidence.

As you familiarise yourself with AI and explore opportunities to replicate the AI use cases you have seen elsewhere, it is crucial to consider how to ensure you use the technology productively and safely. You should bring contextual requirements into the design process early because correcting them later can be more costly. Worse, if you pilot an inappropriate AI solution this can have adverse effects on whether it is adopted by your agents or customers. Look back at the “Using AI responsibly” section for more guidance on this.

What is required to ensure your AI beneficiaries feel safe and empowered when they interact with the technology?

Calling all governments, development partners, and investors!

In their 2025 landscape report, [GSMA](#) examined the maturity of the African AI ecosystem. They looked at factors such as skills levels and the availability of, and access to, data to understand the relatively slow development and adoption of AI on the continent.

The 2024 report from [EY and Devex](#) identified five critical ways to support the use of AI in achieving the SDGs. These include empowering communities to tailor AI solutions to their needs and building confidence, trust and transparency in AI processes to safeguard vulnerable people.

Some of the recommendations are reflected in the 2025 Africa Declaration on Artificial Intelligence that we mentioned earlier. The Declaration outlines seven strategic pillars to drive Africa's competitive AI leadership. These include:

- Talent (building a pipeline of AI practitioners to serve Africa's needs)
- Data and language support (adapting LLMs to support local languages)
- Markets (establishing regional AI hubs for African-led innovation)
- Investment (launching a \$60 billion Africa AI Fund), and
- Governance (advancing responsible, innovative national AI policies).

Now it is up to investors, donors, governments, universities and other stakeholders to act on these recommendations to ensure that together we can shape a unified, inclusive and transformative AI future for the continent. The GDC will keep an eye out for new AI applications becoming available to last mile distributors.

Acknowledgements

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David Hugues (Last Mile Technologies)

Ibrahim Sajid (GSMA)

Willem Nolens (PAYGo Lab)

Maarten Mulder (Anzanote)

Chris Kirby (Gates Foundation)

Further reading

Literature

- Supported by donors like the UK's Foreign Commonwealth and Development Office (FCDO), the [Artificial Intelligence for Development \(AI4D\)](#) programme aims to foster safe, inclusive and responsible use of AI for international development. Their resources page brings together studies and insights from the AI4D network and the broader AI community.
- The [Center for Global Development \(CGD\)](#) has a blog series designed to help implementers, policymakers and funders understand the different ways to evaluate the societal impact of AI applications.

Events

- Hosted by Strathmore University, the [Conference on the State of Artificial Intelligence in Africa \(COSAA\)](#) is an annual event that brings together stakeholders from the African AI ecosystem. The aim is to develop and implement AI regulatory frameworks tailored specifically to Africa. In 2025, virtual attendance was free.
- Since 2017, the United Nations has been convening thought leaders, industry professionals and policymakers at their [AI for Good](#) events to solve global challenges using the technology's unique capabilities.

Tools

- Business Fights Poverty developed their own [AI chatbot](#) which makes information about inclusive business solutions available to anyone. The content comes from the thousands of articles, reports, events, podcasts and videos they have curated.
- Revolution Impact and The MERL Tech Initiative created an [AI Vendor Assessment Tool](#) aimed at users in the social impact sector wanting to ensure their ethical use of AI.

Training

- Gen AI providers like [Microsoft](#) and [Google](#) offer their own free online training courses to entrepreneurs who are new to the technology.
- The Kenyan government has partnered with Microsoft and Fast Lane to provide [free online training](#) for business professionals to build job-ready AI skills.

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This material has been funded by UK aid from the UK government via the Transforming Energy Access programme; however, the views expressed do not necessarily reflect the UK government's official policies.

Innovation Spotlight

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