Lessons in scaling

UNDP's Role in Digitalizing Informal Market Vendors in Uganda

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The question is very often… yes, but did it scale?

The purpose of this case study is to share lessons learned from the partnership between UNDP in Uganda and Jumia, a global e-commerce company, to digitalize informal market vendors. It looks at an example of how COVID triggered a pivot for UNDP programming that was initially supported by the UNDP Accelerator Lab in Uganda and then received further investment from the CDO's Digital X Partnerships for Scale Programme to take the work to scale. Building on these investments, the Regional Bureau for Africa plans to develop a regional framework to support scaling.

The story illustrates why, when and how UNDP is (or isn't) well-suited to help social innovations scale, and what constraints can emerge when working with the private sector to do so. Here, we see the challenging journey to scale from pilot to nation-wide platform, and the even rockier struggle to expand lessons learned beyond national borders for regional or global learning. Ultimately, the narrative points to the internal reforms needed to define UNDP's niche in scaling social innovation through commercial channels.

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How we might think about Scale

UNDP's Accelerator Lab network is designed to *explore* systems development challenges and signals of change, *experiment* to figure out how the system will react to interventions, and *map* potential solutions. While the labs help create the conditions for scale, they are a learning network where implementing solutions at scale isn't a core function.

Enter The UNDP's Digital X Partnerships for Scale Programme, created by the UNDP's Chief Digital Office (CDO). Digital X finds and matches ready-to-scale digital solutions—from social enterprises, nonprofits, universities and UN organizations—with the needs of UNDP Country Offices and governments, to help scale impact faster and more efficiently.

In the digital entrepreneurship world, scaling a company typically means growing revenues faster than costs at an exponential rate, and earning higher revenues at lower costs to achieve economies of scale. Scaling a social innovation is a bit more multi-dimensional, but we have a framework to describe it,[1] It describes three dimensions of scaling:

1. *scaling out*, in which more people or localities are impacted;
2. *scaling up*, which refers to the institutional and policy changes that support an innovation; and
3. *scaling deep,* which happens when an innovation shifts culture, behavior, and norms.

We'll refer to this framework as we explore how the UNDP helped to preserve the livelihoods of informal market vendors in Uganda.

COVID-19 Drove the Digitalization of Uganda's Informal Market Vendors

In March 2020, the Government of Uganda instituted tight lockdown measures to slow the spread of COVID-19. Markets weren't technically closed, but informal market vendors were socially distanced and confined to the markets, with people barred from leaving their homes. Not surprisingly, this jeopardized many informal vendors' livelihoods, which depended on the public's ability to shop at open markets for fresh foods and essential commodities.

As part of the pivot needed to respond to new circumstances, UNDP's Accelerator Lab in Uganda recognized this challenge and reached out to Jumia Food, which is a subsidiary of Jumia Uganda, to work with informal market vendors for the first time. Jumia Uganda is an e-commerce retailer that sells a variety of goods, typically phones, electronics, home and office furniture, health and beauty products, fashion and sporting products. It's a part of Jumia, a global company with

operations in 11 African countries, as well as China, Portugal, and the United Arab Emirates.

To address the market access problem for informal vendors, the lab team suggested that Jumia add a grocery category to its e-commerce platform and engage with these vendors for the first time. The decision to expand Jumia's e-commerce platform was based on the strength of Jumia's brand in the region, its strong quality assurance systems, the availability of good packaging and payment options, and the experience Jumia had gained through creating a network of thousands of motorbike riders *(boda bodas)* to provide safe and contactless last-mile deliveries to hundreds of thousands of customers during the lockdown.

With support from the Ministry of Trade, Industry and Cooperatives (MTIC), the National Information Technology Authority of Uganda (NITA - U), and the Private Sector Foundation of Uganda (PSFU), the UNDP Country Office (CO) and Jumia launched a partnership in May 2020 to enable informal market vendors to sell their goods through Jumia's e-commerce platform. The initiative set an ambitious target to pilot the model in five of Kampala's major markets, which later increased to seven. The seven markets—Bugolobi, Kalerwe, Kibuye, Naalya, Nakasero, Nakawa, and Wandegeya—were selected because they connect rural farmers to the urban market in Kampala and the greater metropolitan area, keep the supply chain for agricultural produce active, and provide employment to most of the youth and women in the city.

To get the pilot off the ground, UNDP made systems-level investments that risk-averse private sector actors might have struggled to deliver. For example, UNDP built the technology, skills, and human resources capacity of informal market vendors to increase their digital literacy and maximize their participation in the digital economy through e-commerce. Additionally, UNDP supplied smartphones, airtime and data for the market vendors to use, and paid for Jumia interns to photograph and profile market commodities, process orders, and manage stock. Finally, UNDP also supported a communications and advocacy drive to promote e-commerce for business continuity, the recovery of small businesses, and the protection of jobs and livelihoods amidst the COVID-19 disruptions.

Jumia also made strategic investments, which included profiling and uploading to its platform the fresh foods and essential commodities that informal market vendors trade, training last mile motorbike deliverers, and lobbying the

government to relax lockdown restrictions, especially the curfews for motorbike riders.

With this critical infrastructure in place, customers started placing orders on Jumia's site via smartphone, and those orders were retrieved and filled by market agents from goods sold by informal market vendors. The dedicated pickers then conducted quality assurance on the orders before handing them off to Jumia riders for delivery.

Piloting Informal E-Commerce in Uganda: Jumia and UNDP Build a New Model

On the surface, the team's mission was to enable a new set of users to transact on Jumia's existing e-commerce platform. However, the "real" task was to redesign the supply chains connecting informal market vendors to customers and integrate physical and digital infrastructure. The year-long pilot to achieve this was launched in Uganda's capital city, Kampala, with the intention of scaling across the city, and to other cities and countries. To properly "scale out," the UNDP and Jumia team had to solve problems related to customer fit, distribution, business model, and payments.

- *Customer fit.* To reach customers, the team tackled challenges related to segmentation, literacy, awareness, and preferences. In terms of segmentation, the informal e-commerce pilot focused on middle-income consumers. Not surprisingly, this boosted the earnings of the market vendors who typically served lower-income customers. However, given the relatively small number of middle class consumers in Africa, scaling requires serving the lower-income mass market. The low literacy rates amongst customers and market vendors also needed to be addressed. As a result, the team leveraged the resources available via Digital X, which helps scale the geographic reach and impact of country-level solutions. The team used a portion of its $54,000 award to develop an interactive voice response (IVR) system that allowed customers with limited literacy to use feature phones to call in their orders. They also launched a new product line called *Kikumi Kikumi,* which targeted grocery-buying, low-income earners. Finally, although the Jumia brand was well-known within Kampala, it was less

familiar outside of the central business district and in other cities. Overcoming this awareness gap would require mass marketing—no small task given the high cost of radio and TV ads and a ban on Facebook in place. Customers outside of Kampala also had different preferences—for merchandise such as TVs and dry items over fresh groceries.

- *Distribution.* Perhaps not surprisingly, users' limited access to technology and the difficulty of stimulating demand were also challenges. In addition to low levels of literacy, (low-income) customers and informal market vendors also had limited access to smartphones and the internet due to the cost. As a result, UNDP provided fourteen smartphones with calling airtime and internet access to market agents to support the over 3,000 market vendors who had connected on the Jumia Food platform in seven markets. The CO also supported the delivery of digital and business skills training to market vendors, because they often had limited exposure to transacting online and managing business operations.

  After initial success expanding to multiple markets in Kampala, the next step was to scale to other cities. Again, Digital X stepped in to fund these efforts, but geographic expansion introduced new challenges. For example, population density in Entebbe and Jinja, two of the pilot expansion destinations, is lower than in Kampala. This is because the number of residents in these cities is small, with much of its inbound traffic departing in the evening. The smaller customer numbers lead to lower purchasing power and higher overheads due to the same costs being distributed over fewer goods. To address this, Jumia will consider shifting its focus to markets where vendors are consolidated, aggregating different types of products (dry and fresh goods) to increase demand, and training motivated vendors on how to expand their customer bases.

- *Business model.* Another challenge to expansion was developing a working business model for low-income customers. Creating an IVR platform to serve low-income customers boosted growth by 150% between July and October 2021. However, the average basket size dropped from $30 to $20 because these customers typically order just enough groceries for one day while wealthier customers buy for an entire week. Because small basket

sizes increase operational costs, Jumia will explore how to provide financing to fund bulk purchases. To support continued business model development, Digital X developed a robust financial model to determine the project's level of commercial viability. Going forward, the team will explore whether collecting commission from vendors would be a way to drive revenue, although this could increase the prices of goods for low-income customers. As a result, Jumia's pricing strategy will continue to evolve.

Ultimately, the pilot team learned a great deal about building a scalable business model. For example, they gained deep insights into Ugandan consumption behavior, purchasing patterns and amounts consumed. This new knowledge will continue to shape and refine the model. However, as Jumia and UNDP attempt to expand to other cities, it will be critical to determine how unique or generalizable the pilot learnings are. Will reaching scale simply be a matter of replicating the same model, or will it require overcoming location-specific cultural and behavioral norms? The learning process continues.

Tracking Early Results

Despite the many obstacles faced, the UNDP Jumia pilot onboarded more than 4,000 informal market vendors, 60% of whom were women, youth and people with disabilities. Notably, the digital transactions completed on Jumia's platform increased vendors' daily earnings by more than 100%. The pilot also expanded from 7 to 10 markets, with more than 300,000 unique products sold monthly. However, now that the lockdowns are over, it's unclear whether buying and selling online will persist at the same levels or will flatten out and continue to grow gradually. Presumably, consumer and market vendor behavior as well as (informal) business environment dynamics will partially determine this. For example, during the pandemic, many vendors shifted their shops to the suburban neighborhoods where people lived. For those who did so, selling on WhatsApp or a platform like Jumia was probably cheaper and easier than renting market stalls. Similarly, vendors had also been selling goods on the street to be closer to customers. However, a presidential directive to move vendors into stalls could push them off the street and onto e-commerce platforms. This shift already seems to be happening as the increasing number of informal and formal venders on

social media platforms such as Facebook, Instagram, and Twitter, and emerging e-commerce platforms such as Kikuubo Online, Glovo, and Owino supermarket, suggests.

The goal of the project's next phase is to complete key ecosystem-building activities that will create an enabling environment for informal commerce. These include: 1) supporting the design of a national e-commerce policy and strategic plan to facilitate e-trade; 2) enabling and promoting the acquisition of subsidized mobile devices for informal market vendors; 3) assisting the expansion of subsidized last mile internet connectivity in targeted market and trading areas; 4) developing a self-paced digital literacy program for informal market vendors and formal business; and 5) expanding the initiative to new Ugandan cities such as Fort Portal, Gulu, Hoima, Masaka, Mbale, and Mbarara.

Reflections on Scaling In-Country: How Can UNDP Add Value?

The UNDP Jumia pilot has made progress toward cracking the "first mile" problem—connecting market vendors to pickers and market agents. As a result, the joint contributions made by the Accelerator Lab, Digital X, and the Uganda Country Office, have spurred the development of a more effective operating model. What does this experience tell us about how UNDP functions as an innovation and scaling partner? How should its resources be spent? If we revisit the scaling framework introduced earlier, we can articulate how UNDP helped informal e-commerce in Uganda to scale up, scale deep, and scale out.

- *Scaling up.* Capitalizing on the lessons of the informal market vendor pilot, UNDP Uganda is starting to work with the Ministry of Trade, Industry, and Cooperatives (MITC) to design Uganda's national e-commerce policy and strategic plan, which will create an enabling environment for expanding e-commerce platforms.

  To do so, it's leveraging Jumia's membership in Uganda's e-trading association and its pilot experience to empower other e-trade actors to advocate for the policy shifts and public investments that will accelerate e-commerce in Uganda. But there's still a lot of work to be done. The remaining challenges include raising public awareness of the benefits of e-commerce, increasing digital literacy for consumers and small businesses,

lowering the costs of phones and data, broadening internet access and making connectivity more reliable, building public trust in e-commerce systems through standards, quality assurance, and traceability, etc., and improving infrastructure such as physical address systems and suburban roads.

Additionally, UNDP is supporting the design of a national strategy for the development of the startup ecosystem to foster the growth of startups, including tech startups that will continue to grow the e-commerce industry in Uganda.

- **Scaling out.** Collaborative efforts have helped this initiative to scale out. For example, Digital X enabled Jumia to hire a local NGO to manage operations, which included redesigning the platform, buying smartphones, paying for training and transport, providing float for transactions and brand materials for market vendors, and offering support to female vendors. Also, the lab team provided experimentation expertise throughout the process, which supported value chain redesign and venturing into new markets and customer segments. Going forward, the team wants to help improve last-mile connectivity by engaging with the Ministry of ICT on how to improve access and affordability of internet at the last mile.

- **Scaling deep.** Similarly, the lab's work has been reflected in the Uganda Country Office's new country program document (CPD), or 5-year country plan. Given that the labs are designed to "hand off" successful experiments to be integrated into country programs or beyond, CPD integration is a critical first step. The Uganda market vendor project will continue to focus on supporting vendors and leveraging the [Africa Continental Free Trade Agreement](#) (AfCFTA) to expand to other countries. The expansion will target countries where Jumia operates, such as Kenya and Nigeria, but also countries such as Comoros, Cote D'Ivoire, Ghana, Namibia, and Niger, where Jumia doesn't operate but labs have expressed interest in collaborating.

Additionally, UNDP is helping to position Uganda as a fast mover in harnessing the   AfCFTA through the SMEs4Trade Initiative. As part of this

program, efforts are underway to design an e-learning platform to support MSMEs' self-paced digital skilling, as well as a platform for market intelligence and b2b linkages.

Beyond e-commerce, the CO is tackling some of the bottlenecks that are blocking Uganda's digital transformation through the Digitalization, Innovation and Smart Cities (DISC) Programme, 2021-2025. It's working in partnership with the CDO's Global Digital Public Goods (GDPG) Initiative and directly supporting the Ministry of Information and Communications Technology on several strategic interventions. For example, they're designing a 10-year, national, digital transformation roadmap that will harness big data and accelerate digital skilling in schools.

Into the Future: What is UNDP's Role in Country-to-Country Scaling for Social Innovation?

The UNDP Jumia partnership illustrates that Accelerator Labs are adept at spotting emerging problems and engaging with unlikely partners to generate solutions. UNDP Country Offices play a key role in resourcing experimentation and integrating promising experiments into the broader organization. Digital X provides strategic resources that establish the pre-conditions for scale. In the case of digitalizing informal market vendors, it's too early to tell if Jumia Uganda can profitably increase their incomes and serve low-income customers through e-commerce. In an ideal world, the UNDP Jumia pilot will help establish "street markets as Africa's largest e-commerce warehouse." In the meantime, it's worth thinking about how best to deploy UNDP's innovation resources. If the goal is to see models like Jumia spread from country to country through UNDP's global network, UNDP needs to develop a scaling strategy that doesn't assume good ideas move without investment.

With this in mind, the Jumia pilot raises some critical questions about UNDP's innovation scaling strategy:

1. ***Who in UNDP shepherds and owns taking a promising innovation to scale across multiple countries?*** While innovations emerge at the frontline (in Country Offices), it remains unclear whose responsibility it is to scale

innovations beyond the prototype stage. Although scaling solutions between Country Offices is the premise of UNDP as a global knowledge organization, the incentives to make this happen are not fully developed. As we see in the Jumia case, Country Offices, Regional Bureaus, and the Chief Digital Office can all play roles. But even in the success scenario that the Jumia pilot represents, there's no dedicated scaling path or responsibilities. This is particularly true when innovations are developed by the private sector.

2. ***What are the preconditions to starting a scaling journey beyond each CO?*** What we mean by scale isn't always straightforward, nor is it obvious when a scale expedition should begin and what it should look like. For example, after a successful pilot in Kampala, the Jumia team's decision to expand into neighboring cities was a logical step in the journey toward in-country scaling. However, the incentives to expand beyond Uganda are unclear. What incentives do COs have to go the extra mile and translate their partnerships, particularly with private sector partners, to induce country to country scaling? Similarly, what role might regional bureaus play in scaling innovations to multiple countries? To make scaling possible, there's a need to reflect on how the UNDP system creates the conditions to replicate models proven in other countries without tripping over the differences in how COs apply (procurement) rules to access private sector knowledge and capacity.

3. ***What roles should UNDP play in scaling private sector innovations?*** The imperative to protect against UNDP-subsidized profiteering by private sector partners means that it's quite difficult to procure services from, or partner with the private sector. For instance, a responsible party agreement, which enables engaging an institution to provide services as an implementing partner, can be created with a nonprofit organization but not a for-profit one (without elaborate due diligence). But with a significant portion of innovations coming from private sector actors like Jumia, what is UNDP's approach? We cannot assume scaling will happen automatically, particularly where there are procedural barriers against UNDP's involvement in commercial scaling. However, from an economic standpoint, there might be opportunities for UNDP as a development actor to support

and de-risk business opportunities with social impact that aren't immediately commercially attractive.

4. ***What happens to drive scale (within private-sector innovations) outside of the UNDP system?*** It would be naïve to assume that an innovation's scaling journey would end with UNDP. However, not only is there no internal scaling infrastructure, but there are also no specific processes or partnerships in place to hand off innovations to external actors, such as governments, who may want to procure services from innovators.

Partnering with Tech Companies: A Major Scaling Bottleneck

As some of the questions above suggest, commercial scaling routes present a fork in the road for UNDP due to structural, organizational, and (potential) mission misalignments. Not only is it unclear who drives scale and why, but when it comes to commercial solutions, the current presumption is that UNDP has no niche or specific procedures in assisting tech/start up companies differently from more established private sector actors, where the default is always towards open procurement.

As a result, commercial scaling is an emergent area with an ill-defined path within the organization. UNDP lacks the operational "license" to address bottlenecks in commercial scaling because of the perception that fair procurement prevents the organization from backing specific companies. However, if UNDP does aim to play a role, it's important to acknowledge that a portion of solutions being identified by UNDP Country Offices (and potentially even some of those developed internally) would have the potential to commercialize.

For those types of solutions (assuming they have a social impact focus), Digital X and or other mechanisms like it, could be a viable way to build local ecosystems that connect the needs of UNDP, governments, and societies, with impactful digital solutions, and potentially scale them. Alternatively, solutions could be scaled through government partners. In Jumia's case, for example, we see how investments from the Accelerator Lab and the CDO through Digital X have contributed to the Ugandan government's exploration of e-commerce policy. The question then becomes: is there space for evolving UNDP private sector

procedures in order to assist in scaling commercial ventures shown to have positive social/environmental impact?

If UNDP is serious about supporting tech sector innovations, it needs a way to vet them. It's important to evaluate scale potential and get clarity on how best to direct resources to support scaling initiatives. One perspective, articulated by Christof Hawle, Digital Innovation Specialist for the CDO, is to define three broad scenarios for readiness to scale for social innovations, with different implications for UNDP as a development actor:

1. *Financially sustainable, poised for organic growth*. For example, in a hypothetical case for Jumia, charging the vendors commission would lead to profitable operations within a specified time period, and vendors would experience a measurable increase in income. In this scenario, UNDP could provide early-stage innovation funding to lower the risks of the private sector entering such a market. It would also publish the learnings from partnering with a specific private sector actor, so others could benefit from the knowledge generated with development funding.

2. *Financially sustainable, needs development contribution*. Like the above, this scenario involves achieving profitable operations and income increases for vendors. However, the journey to profitability is longer and development funding assistance would be required until a viable business and operating model is identified and break-even is achieved. In this scenario, UNDP's role could be more substantial, with an emphasis on balancing commercial and development interests, and preserving fair competition. For example, UNDP could spin off the socially impactful components of a solution into a non-profit consortium or deliver them as digital public goods.

3. *Financially not sustainable*. In this instance, the business model doesn't yield profitable operations. The project could only be sustained with development assistance, but vendors would still achieve increased incomes. With these circumstances, we're largely operating in the realm of traditional development programming where government partners or development actors could choose to engage in a market that isn't viable for the private sector in the medium term.

These three scenarios illustrate the utility of assessing to what extent UNDP's contributions would enable the sustainability and scalability of a social innovation, and what the impact and cost implications for each stop along the continuum might be. They also suggest what level of subsidy the UNDP might need to provide to expand the social impact potential of a private sector firm's innovation. With Jumia, the opportunity was to increase incomes for market vendors while also serving low-income customers.

Understanding the balance between commercial viability, scalability, and impact from UNDP's perspective, along with private commercial interests, is especially important because UNDP's role probably isn't to help build technology or cover the operational costs of a commercial or social enterprise indefinitely. UNDP is probably much better positioned to support ecosystem building—ensuring that the appropriate institutional, infrastructural, and policy-oriented foundation is laid to support promising, impact-creating innovations. It can also support the creation of [digital public goods](#) (open-source solutions that comprise infrastructure to provide better services and stimulate economic growth) and nonprofit intermediaries. Doing this work helps to de-risk projects that might be stymied by systemic barriers. Even so, UNDP's large-scale, distributed reach (more than 170 country offices globally) makes it an ideal partner to reach vulnerable communities at scale and deploy social innovations through country programs. Also, as the Jumia partnership demonstrates, UNDP can bring the development and private sectors together to experiment toward solutions that are impactful and financially sound, and then share the lessons learned.

Clearly, a nuanced conversation about what it means to scale private sector social innovation at UNDP is long overdue. But hopefully, this sparks an ongoing dialogue, and we look forward to continuing the conversation.