



Digital Agent Network

Pilot Project



Nic Wasunna

www.bfaglobal.com | nwasunna@bfaglobal.com

Our understanding of your requirements

In the last decade, the growth of digital financial services was poised to reshape and disrupt services offered traditionally by banks. Mobile Money Operators had developed ubiquitous agent networks as access points where customers can register mobile money wallets, cash-in in exchange for e-value, and cash out the e-value in exchange for cash.

The advent of services like mobile money, mobile banking, and online banking in many developing countries, including Uganda, forced financial service providers to rethink the way they structure their business models. For example, banks started to decentralize their services to bring them closer to the users through agents. These agent services have become such an integral part of everyday life that it is more likely to reach mobile money and bank agents for financial transactions than a commercial bank or ATM.

However, although many gains have been made in these sectors, services such as education, government, health, financial service institutions, transport, merchant ecosystems, and agriculture still remain heavily fragmented and disjointed, with each sector developing their own siloed infrastructure requirements that fail to interconnect with other sectors. The biggest hurdle for users comes as a result of lack of user identity, credentials and digitization, leading to expensive and inefficient manual processes, and thus not gaining the full benefits of the services offered.

With the rapid growth of digital services, it is necessary to implement new unified approaches to drive synergy, efficiency and transparency across all the facets of users' lives. Mastercard Community Pass provides a platform where users can access multiple products through one shared infrastructure with potential benefits to both service providers and users.

The roll out of such an infrastructure would rely on the support of stakeholders at different levels including agents, agent network providers, and platform providers to drive adoption, usage and inclusivity, especially to the bottom of the pyramid users. Thus, a structured approach would be required to play the role of managing the heavy operational and tactical responsibilities such as onboarding, customer education, agent training, monitoring, branding, liquidity management, and any other roles as needed by the provider. As such, the provider are able to focus on the more strategic aspects of the business.

It is against this background that The Innovation Village (TIV) is seeking a consultant to **implement a successful Agent Network aggregator model** to be operationalized through the Digital Economy Program, leveraging the Mastercard Community Pass platform. In order to achieve this, **a 6-month pilot will be developed with three selected ANMs** and through the process, **develop, implement and test the operational, technical, business and financial models** to be used during the pilot. This will include **a structural and technical support model for Agents** and **a scale-up plan based on at least three feasibility studies** leveraging the outcomes of the market tests conducted. Thereafter the learnings will be used to fully launch a successful Digital Agent Network.

Our proposed methodology

Based on the scope of work that has been defined by TIV, we will develop a systematic approach to implement the pilot, while ensuring that we meet all the requirements laid out by TIV and provide additional support and information based on our past experience. We will follow a phased approach to cover the most important aspects at each stage, allowing room to evaluate and make the relevant improvements wherever necessary.

For a successful implementation of the pilot, TIV should expect from us:

- A well-outlined project implementation plan detailing how we will execute the pilot within the 6 months
- A project governance structure that will define who will be responsible for all the activities at each stage of the project
- A competent project team which will execute the project as per the scope outlined by TIV. This will include an experienced project manager with experience in implementing ANM network roll-out, who we will contract to lead the project in-country and coordinate the project team.

In addition to the above, it will be contingent on TIV to have all the requirements ready at the inception of the project. Most importantly it will be expected that TIV and its partners will have a clear scope of the pilot project and commitment to supporting the project by providing:

- Any existing business functions and operational plans that they already have in place to establish the agent network models.
- All material information that would support the quick and successful execution of the pilot project. This includes prior implementation plans,

nano-projects on agent network roll outs, any previous research and learnings from previous experiences.

- An internal team which will work with us at every stage of the process so that we can progressively cross-learn and pass on any skills, knowledge, learnings, and tools to the team after launch.
- A competent project manager or any such resource who we will liaise with directly through the entire duration of the project
- All technology tools that will be used by the ANMs to implement the pilot project
- Timely response to any queries and requests that come from the project team

Phase 1: Kick-off and Planning

We propose a series of joint meetings to kick off the project together with the TIV project team. The purpose of these meetings will be to:

- Review and sign off the scope of the project
- Review and sign off the project plan, order of activities, resources, tools and time allocation for all the activities including check-in meetings
- Introduce the project team and define their roles
- Define the project governance structure
- Confirm the availability of all tools and resources required to execute the project

Phase 2: Defining ANM role and value proposition, and Selecting ANM

Defining the role and value proposition for engaging the ANMs:

We will work with TIV to understand the objectives and draw a framework of how the ANMs can possibly help them achieve these objectives. Once this is agreed upon, we will jointly develop and define a role matrix for the ANMs. In defining the roles, we will analyse:

- Priority value chains of the sectors in which the pilot will focus e.g education, agriculture, MSME
- The structures of the value chains in sectors which TIV wants to start the pilot the service providers, the agents and agent network providers, the users, the services and how they interact with each other. For example:

Education:

Service	BoP User	BoP Merchant [Agent]	Agent Manager
Education	Pupil/Student Parents Teachers	1. Education Institution 2. Financial Institution	1. Education Institution 2. Financial Institution 3. Teachers' Association 4. Education Ministry
MSME	Small shops Customers	1. Shopkeeper 2. Financial Institution	1. Suppliers 2. Distributors 3. Business licensing body

- The gaps within the value chains and areas of opportunity for Agents to play an active role in driving increase in accessibility, usability and inclusivity of value chain services while reducing costs
- The extent to which the use of Agents can help to reduce the gaps as well as increase opportunities for accessibility, usage and inclusivity of these services within the value chain services. We will look at how to expand use cases within a sector and/or transition to services in other sectors through existing interlinkages e.g. education $\leftarrow \rightarrow$ health $\leftarrow \rightarrow$ agriculture $\leftarrow \rightarrow$ MSME
- Based on all the information above and more, we will define the roles and value proposition for the ANMs and identify the suitable players who would likely play various roles either exclusively or interchangeably to increase efficiency e.g. identifying which institution(s) play the best role in recruiting could schools be both agents and agent managers

We will also pick some learnings from the selection process on which additional roles they play and evaluate their suitability and applicability and then configure them accordingly to fit into TIV's overall business objectives.

Shortlisting ANMs:

We work with TIV to create a long list of prospective ANMs, evaluating the ANMs that have already been deployed by TIV's partners and other providers in Uganda first and then others from across the board. The evaluation will be based on their:

- Use cases or broader sectors they serve e.g. Education, Agriculture, MSME, Health, Financial Services etc. The broader the number of use cases, the better, as this will demonstrate their experience in aggregating a shared infrastructure
- Business and operation model, focusing on simplicity and high scalability

- Technology used in the value chain e.g. for monitoring the performance of agents and reporting
- Support structure i.e. to Agents they support and from the providers they serve

We will then analyze this information based on the success factors, gaps, challenges, opportunities etc, and use it as a benchmark when developing the pilot.

To achieve a successful pilot and to give TIV the highest level of confidence to launch at full scale, we shall deploy a thorough selection criterion to determine which ANMs are best positioned to deliver TIV's most critical requirements.

We propose to use two or more approaches to select a pool of ANMs from which we will select the best three:

- Contracting existing retail chains or FMCG distributors, education institutions or health service provider networks
- Identifying potential Agent Managers that can be leveraged in a distribution system,
- Building a network of independent agents from scratch.

We believe that using this broad approach could help us yield more learnings about the different characteristics and business models and also help us to measure which ones adopt the best requirements to manage agent networks. However, the approach used will be determined by time and budget.

Finally, a scoring criteria will be used to select the best three ANMs for the 6-month pilot.

We will then analyze these roles against TIV's objectives and define the value proposition for engaging them. We will use human-centered design approaches to work with the three selected ANMs to design and tailor their roles to support their deep engagement with agents and enhance the value propositions to TIV. The results of the HCD will inform us on how best to design these roles so that there is seamless engagement across the value chain.

Phase 3: Designing the business tools for Agent Network Management

Designing and formalizing a standard remuneration and incentivization model for Digital Agents

We will develop a financial model which will be used to determine the optimal return that ANMs should expect for their participation in the value chain, and incentivization or recognition for exceptional performance. In designing this model, we will consider the current offerings in the market and benchmark for competitiveness.

We will define the rules governing the remuneration with respect to:

- What services ANMs are paid for and which ones they will not,
- How remuneration is calculated,
- How often payments are made,
- Standardization commissions, and so on.

In addition, we will include the remuneration module as part of the human-centered design process to identify what the Agents resonate most with as a suitable way of remuneration and incentivization and design one for the pilot. We will consider innovations that have been used by players globally, such as gamification, awards of bonus for best performers, support to drive higher footfall, support from head office, and value-added services. We will also consider some of the challenges that have been experienced by existing ANMs with respect to remuneration and propose plans to overcome them.

Designing the performance management and reporting process for the ANMs and the individual Digital Agents

We propose that all relevant data and information will be captured at all levels, then disaggregated for the purpose of use at the levels where it is most applicable and for the purpose for which it is intended. This reporting will follow a hierarchy such that different roles within the structure will take action or make strategic decisions based on the information that is available to them. For example, different reports will be developed for tracking customer trends, agent performance, agent training needs, locations, transactions, etc to help the ANMs execute their roles effectively and efficiently.

Performance management tools will be based on measurable outcomes and designed using performance indicators for Agents and ANMs. We will work with TIV to develop:

- Reporting tools to be used during face-to-face onsite visits and remotely via technology such as Management Information Systems. These will include reporting roles, reporting intervals and what is reported

- Performance management instruments that are that are designed for transparency so that both the ANM and the Agents can track performance at every level

We believe that periodic audits are important to ensure that standards and the right procedures are adhered to. Therefore, we propose to include audit checklists and tools to ensure adherence to agreed processes, procedures and standards across the value chain, which we will also work with TIV to develop.

As part of the HCD approach, we will include a module to design and implement the most optimal reporting and reporting tools. These tools will be simulated to the ANMs and some agents tailored to their operational needs.

Develop a Digital Agent Network Business model to be tested during the pilot and scaled up in 2023.

In developing the business model we will identify the relationships that TIV has with the partner organizations within the value chain, such as ANMs, agents, financial institutions, and other stakeholders. We will also analyze the workflows across the value chain such that all revenue that is generated is proportionately distributed among all actors in the value chain. We will build a financial model of those processes using Google Sheets and the visualizations to represent these workflows and relationships and how money flows to support the value chain.

We will leverage this evidence and modeling as an input into grounding the scaling-up plan in different financial viability scenarios.

Identify specific ways the company will catalyze job creation for youth (especially young women) by use of the Digital Rails.

We will explore the opportunities that exist to prioritize the recruitment of youth and women as potential agents within the agent network. The recruitment of women as agents, in particular, has been observed to be a key driver of the use of Agent networks, especially by women. We understand that this segment may not have sufficient capital and qualifications to meet National regulations and guidelines regarding the recruitment of agents. As such, we will develop criteria for ANMs to implement sub-agent models and community-based models of agent recruitment that allow individuals to serve as agents even where they do not directly meet the Regulator qualifications. We will also explore opportunities for partnerships that run under an 'internship' model with existing entrepreneurs to provide business experience through the inculcation of business skills for the segment.

In developing the agent business model, we will provide attractive commissions and business support for this segment to ensure that they are able to earn and improve their livelihoods.

Phase 4: Pilot

Pilot Digital Agent Network Program

We will design a 6-month rollout plan for the pilot with the three selected ANMs. We recommend that TIV teams are available throughout the pilot process to learn, test, and implement all the aspects of the pilot.

To achieve the best results we will work with TIV to:

- Implement a human-centred design approach to understanding the ANMs, the Agents they will serve, and a systems approach towards the roll out of their services and strategies. The HCD will be conducted to design and tailor:
 - The ANMs' roles and responsibilities
 - Value proposition for engaging ANMs
 - The remuneration and incentivization model
 - The audit, procedures, reporting, and performance management
 - The test parameters and scenarios for the business model to be used during the pilot
 - The technology that will be used by ANMs, and how they adoption and interaction with it

The results of the HCD will be used to inform how the implementation of the rest of the pilot will happen, but we will allow room for iterations of processes, tools and models as is needed.

- Develop an agent activation plan for the ANMs to use in regions where we are likely to get the most outcome in terms of customer uptake, usage, as well as learning. We will develop a system of collecting feedback from each region and document the results to understand the different drivers of uptake and usage.
- Create an agent training and education plan to help the ANM learn and understand their roles and responsibilities, their business deliverables and expectations, and the use of provided technology tools. We will also test the effectiveness of the training by monitoring the impact.
- Implement and test performance management tools and use these to track performance with clear performance indicators for each ANM such as

transactional targets, branding quality, customer service, and liquidity management. Ultimately, we will aim to achieve a simple tracker which gives near real-time performance so that quick actions are taken to improve.

- Provide the Agents with the right technology tools to support them in executing their mandate. During the pilot, we will propose adding features incrementally and using a human-centered design methodology to test how best to optimize the usability of the tools to deliver the intended results.
- Implement, manage and track agent remuneration, to ensure that it is commensurate with the services they are offering
- Implement an Agent Management governance structure that follows an efficient and cost-effective hierarchy of approval rights, roles, and responsibilities at every level.

Phase 5: Project Monitoring & Evaluation

We will develop an evaluation plan which will run from the first month to the end of the 6-month pilot. We propose to start the monitoring exercise within the pilot period rather than at the end, so that we are able to refine and make adjustments and iterations to some of the process, tools, and models that we will introduce during implementation.

Project Close-out and Handover

At the end of the pilot period, we will meet with the TIV team to do a final review of the project and share learnings, and hand over all the relevant documents. The close-out activities will include:

- Hand over the complete ANM operational manual
- Hand over the complete business and financial model
- Hand over the scale-up plan for Digital ANMs with 3 feasibility studies
- Hand over a Digital ANM support model for Agents and Devices
- Handover of all relevant tools and documents to TIV team
- Review checklist confirming successful completion of pilot deliverables and document all pending items

At this stage, if any further work will be required by TIV, it will be considered a new scope and will discuss the terms of that extension.

Specific Activities and Proposed Timeline

We propose the following sequence of activities leading up to the pilot. These activities have been outlined to the best of our understanding of the scope of work and will be open to further amendment during the inception of the project. Once this is agreed, we will translate it to a Gantt chart, outlining the specific timelines for each activity as part of the detailed project plan.

Project Phase	Month					
Phase 1: Kick-off and planning	1	2	3	4	5	6
Planning and kick-off meetings between BFA and TIV						
Review and sign off the scope of the project						
Review and sign off the project plan, order of activities, resources, tools and time allocation for all the activities including check in meetings						
Introduce the project team and define their roles						
Define the project governance structure						
Review tools and technology required for the pilot						
Phase 2: Defining ANM role and value proposition, and Selecting ANM						
Defining the role and value proposition for engaging the ANMs						
Understanding the objectives of TIV and need for engaging ANMs to achieve the objectives						
Evaluating the roles of existing ANMs						
Mapping and configuring the roles that are applicable to meeting TIV's objectives						
Develop a HCD tool to design and tailor ANM roles to enhance the value proposition to TIV						
Evaluate existing and potential ANMs in Uganda						
Create a longlist of ANMs and analysis of their business and services						
Scoring and selection of 3 ANMs						
Phase 3: Designing the business tools for Agent Network Management						
Designing and formalizing a standard remuneration and incentivization model for Digital Agents						
Define the rules governing remuneration						
Develop a financial model for remuneration and incentivization						
Develop a human-centered design tool that will be used to design and implement the remuneration and incentivization offering to the selected ANMs during pilot						

Designing the performance management, audit and reporting process						
Design reporting field and remote tools for ANMs						
Design performance management tools and processes						
Develop business reporting metrics, processes, procedures and standards						
Design audit checklist/tools based on agreed standards and procedures						
Develop a HCD tool to design and tailor audit, procedures, reporting, and performance management						
Develop a Digital Agent Network Business model to be tested during the pilot and scaled up in 2023						
Identify relationships across the value chain, develop workflows						
Build a financial model on Google Sheets and visualization of the workflows and money flows						
Analyze the economies across the value chains and identify where value is created by using technology						
Develop a HCD tool to design, tailor and create test parameters and scenarios for the business model to be used during the pilot						
Identify opportunities for job creation for youth						
Develop a criteria for ANMs to implement alternative models to attract women and youth including sub-agent model, community-based models and business apprenticeship/ internship opportunities						
Develop an alternative incentive plan for youth and women ANMs						
Develop a HCD tool to design and tailor audit, procedures, reporting, and performance management						
Phase 4: Pilot						
Develop a 6-month rollout plan with three selected ANMs						
Carry out the HCD to test the business tools, processes, business models etc						
Develop draft ANM operational manual, business and financial models, ANM support model						
Agent activation and onboarding						
Agent training and education - roles and responsibilities, technology, customer service etc						
Implementation of governance structure						
Implement and test performance management tools						
Test and monitor technology						
Pilot Go-Live						
Track remuneration and incentives						
Testing the business model						
Post-Pilot Go-Live Evaluation						
Month 1 evaluation						
Month 2 evaluation						
Month 3 evaluation						
Month 4 evaluation						

Develop refined ANM operational manual, business and financial models, and ANM support model						
Develop a scale-up plan and feasibility study for ANMs						
Pilot Completion, Project Close out and Handover						
Hand over complete ANM operational manual						
Hand over complete business and financial model						
Hand over the scale-up plan for Digital ANMs with 3 feasibility studies						
Hand over a Digital ANM support model for Agents and Devices						
Handover of all relevant tools and documents to TIV team						
Review checklist confirming successful completion of pilot deliverables and document all pending items						

Deliverables

As outlined in the proposal, the deliverables for this project will be:

1. Produce a detailed agent network aggregator operational model
2. Complete a successful 6-month market test/pilot of the designed Digital Agent Network model with 3 selected ANMs.
3. Produce a business and financial model that reflects a successful deployment of the Digital Agent Network
4. Submit a scale up plan of the Digital Agent Network that includes at least 3 feasibility studies, based on the market test conducted.
5. Produce a Digital Agent Network support model for Agents and devices including technical support

Our Team of Experts

BFA has put together a team of specialists and experts in financial inclusion, digital payments, and impact assessment. The core team consists of the following team members.

Nic Wasunna is a [Senior Consultant](#) at BFA Global and will be the Lead for this project. He is a technology enthusiast and comes with 18+ years of commercial experience in product innovation/development, channel, and market development. He has practical experience in building, supporting, managing and monitoring Agent Networks. He has worked with global brands like M-PESA, where he was Channel Analysis and Development Manager supporting M-PESA Agents. During this time he developed innovative solutions for M-PESA agents such as *Float SASA* an

agent credit system to help improve liquidity), M-PESA Agent Awards (a program that was developed to specifically incentivize M-PESA Agents) and Lipa na M-PESA (a mobile payment product which he also proposed the use of M-PESA agents to enroll merchants to the service. Prior to BFA, Nic worked at Inclusivity Solutions, an Africa-based InsurTech as GM and Head of Business Development, where was responsible for identifying and onboarding new inclusive insurance partners with whom they developed bundled insurance products to increase reach to the underserved segments. Prior to that, he worked at GSMA Mobile for Development (M4D) program, where he brokered collaborative engagements among mobile networks, FinTechs, digital service providers, and other stakeholders in order to build incremental adoption and usage of mobile financial services globally. At GSMA he supported mobile money operators globally to roll out their agent networks by provisioning both strategic expertise and technical assistance. He wrote a publication on Distribution 2.0, imagining a future of digital agents and conditions under which they will be likely to operate. Nic also worked at Safaricom for 10 years, where he held positions in customer service, sales, product, channel, and business development. Nic holds a BA from Kenyatta University, an MBA from Strathmore Business School, Nairobi and Global Module of the Advanced Management (GMAM) Programme from IESE Business School, Spain.

Nancy Kiarie is a Consultant at BFA Global. She is a digital financial services specialist with over 13 years of industry and sector experience in banking and financial inclusion, digital payments , MSME, and youth development sectors. She has deep expertise in supporting financial sector stakeholders serving underserved and unbanked segments through the design and delivery of customer-led digital financial services to enhance financial inclusion with a specific focus on the inclusion of women and other marginalised populations. She has provided advisory services, technical assistance, and training support to financial sector stakeholders in Sub-saharan Africa, MENA, and South Asia. For this project, Nancy will leverage her experience in the payments space to derive insights on the impact across different categories of users and determine Her areas of expertise include: DFS strategy design and development, payments and distribution, product development, market research, DFS fraud and risk management, marketing, relationship management and business development. She is based out of Nairobi, Kenya.

Jorge Hernande is a Financial Modeling Specialist at BFA Global. He is an Industrial Engineer and MBA with finance background in structuring business and finance planning across the industries of technology, consulting, flight transportation, vehicle post-sale and distribution. Jorge has contributed to several BFA projects creating

analytical models that include the production of financial models to determine product and channel profitability for financial institutions across Africa, Asia, and Latin America; and the development of a tool to help financial service providers in Africa assess whether or not there is a viable business case to link remittances to broader financial services.

Anne Gachoka is a Qualitative Research Lead at BFA Global. Anne has ten years' experience in social and market research working in several other local research firms. Anne has an in-depth understanding of using a variety of approaches and methods in designing and integrating research protocols, overseeing the implementation of the research and deriving actionable insights from the research. Anne has led user research for various projects which includes digital ecosystem and mapping exercise for mastercard worldwide. Previously, she was a Research Field Manager at DDD. She was the first staff member to join Kenya Financial Diaries project and is deeply steeped in the stories and histories of the respondents. She is based out of Nairobi, Kenya.

During this project, we will engage the following experts to advise at various stages of the project:

Amolo Ng'weno is CEO of BFA Global, and is a leading expert in inclusive finance and the digital economy with over 30 years of experience in development policy, technology, financial services, and entrepreneurship. As CEO, she is leading about how to understand the impact of digital financial services for over a decade and was part of the team who developed impact measurement approaches for the Pacific Islands Financial Inclusion Project (2018). BFA's growth beyond inclusive finance to include a broader array of digital and tech solutions for vulnerable people. She also leads a wide range of projects including BFA's pioneering efforts into digital work, superplatforms, and iWorkers. Formerly, she was the Managing Director of Digital Divide Data (DDD) Kenya, a social enterprise that provides data and research services to companies and governments, while hiring young people from disadvantaged backgrounds and supporting their higher education. Prior to that, Amolo held a position as Deputy Director in the Financial Services for the Poor team at the Bill and Melinda Gates Foundation. In that role, she worked to improve the scale, range and impact of financial services available to the poor in developing countries. Prior to her work at the Foundation, Amolo worked in Kenya, her native country, where she was the COO of the Trust for African Rock Art. She serves on the board of the GSMA Foundation, and was a steering committee member for the International Labor Organization & Microinsurance Innovation

Facility and GSMA's Mobile Money for the Unbanked Fund. She is based out of Nairobi, Kenya.

Michelle Hassan is the Kenya Country Manager and a Principal Consultant at BFA Global. She has over 10 years of experience working in the financial inclusion space. She has worked alongside development finance institutions, banks and startups to understand the low-income consumers and develop products to support them. Michelle is also the Kenya country lead for Catalyst fund which supports startups across Latin America, Africa, and Asia to create innovative, affordable and relevant financial solutions for underserved populations, designing tailored venture building projects that meet startups' needs. Michelle also leads the refugee work at BFA Global. She has played a lead role in creating linkages between PAYGo solar operators and financial institutions in East Africa under the FIBR project, and has led BFA's qualitative solar consumer research efforts in East Africa. Prior to joining BFA, Michelle worked as Research Director at Digital Divide Data.

Lydia Maison is a Senior Consultant at BFA Global, serving as a Product Manager for Catalyst Fund. As a leader and strategist, she is invested in understanding people - their vision and needs, the solutions they seek, orchestrating the build of said solutions whilst enabling the building of core organizational capacity to sustain continual growth. She has 10+ years of experience in Product Innovation, Strategy and Development. Prior to joining BFA Global, she was the Head of Innovation for Aspira driving strategy adoption through data-driven solutions. In addition to this, she was actively involved in market research, recruitment, business and partnership development. Before Aspira, she worked as a product & tech consultant at startup organizations in Kenya and South Africa, managing product development of solutions across multiple industries.

BFA's relevant past work

Summary of experience in the relevant sectors and required competencies

#	Project	Period	Digital Agent Network	Agriculture	Digital Financial Services (DFS)	Education Services	Micro & Small Enterprises (MSE)	Youth & women employment	Training	Health Services
1	Country Analysis on CICO Networks, Colombia	2019	✓		✓		✓			
2	Agent Strategy, Product Diversification, Tanzania	2014	✓		✓		✓			
3	Brazil Agent Initiative, Brazil	2013	✓		✓		✓			
4	Gender Data Stack & Women's Financial Inclusion, Egypt	2018	✓		✓			✓		
5	NTP 3, Channel Optimization (Diamond Bank), Nigeria	2014	✓		✓		✓			
6	Pesatransact Nano, Kenya	2018	✓		✓		✓			
7	Financial Inclusion on Business Runways (FIBR)	2019	✓		✓		✓			
8	Farm Pass: Increase uptake and usage of Farmers Digital Solution product	2021 - 2022		✓	✓		✓		✓	
9	Catalyst Fund Inclusive Fintech	2015	✓	✓	✓		✓	✓	✓	✓
10	Catalyst Fund Inclusive Digital Commerce,	2020			✓		✓	✓		
11	Farmer network extended value chain evaluation	2021 - 2022		✓	✓		✓			
12	Home Grown Digital School Feeding programme research	2021		✓	✓	✓				
13	Charge project	2022 - Date			✓		✓			
14	Home Grown School Feeding Research Programme Rwanda	2021			✓	✓				
15	Expanding Employment and Opportunity through Digital Centers in Kenya	2020 - 2021			✓		✓	✓	✓	
16	Market Readiness Assessment Study For DF+ in Uganda			✓	✓		✓	✓		
17	CGAP Colombia Deep Dive Qualitative Research, Colombia	2014			✓		✓			
18	Evaluation of DFI Strategy, Ghana & Uganda	2019			✓			✓		

#	Project	Period	Digital Agent Network	Agriculture	Digital Financial Services (DFS)	Education Services	Micro & Small Enterprises (MSE)	Youth & women employment	Training	Health Services
19	Hustlers Financial Products	2020 - 2021			✓		✓	✓	✓	
20	Approach to onboarding women's collective enterprises to e-commerce	2020 - 2022			✓		✓	✓		
21	Women Financial Services in Ethiopia	2021 - 2022			✓	✓	✓	✓		
22	Assistive Technology (AT) Impact Fund	2020								✓
23	SA Digital Spazas	2020			✓		✓			
24	Payments for Vaccine Campaigns	2021 - 2022			✓					✓
25	Income-Linked Finance for TVET	2019			✓	✓	✓	✓		

The details of these projects are listed below in the same number order:

1. Project Title, Country & Year: Country Analysis on CICO Networks, Colombia, 2019

Client: World Bank, CGAP

Sector: Agent Networks, DFS, MSE

Reference: BFA Global worked in collaboration with Marulanda Consultores and CGAP to develop a case study of CICO Networks in Colombia to illustrate the evolution of these networks in the country and its opportunities for expanding their reach into rural areas in the future. The project included a literature review, expert interviews with C-Suite level executives from CICO networks, data analysis from existing and available government databases, and in-depth qualitative interviews with CICO agents from urban and rural areas across the country. The study served as a point of comparison for the evolution of CICO networks globally across different geographies and tested out the validity and relevance of CGAP "6 principles for inclusive agent networks", developed under the initiative "Agent Networks at the Last Mile."

2. Project Title, Country & Year: Agent Strategy, Product Diversification, Tanzania, 2014

Client: Women's World Banking

Sector: Agent Networks, DFS, MSEs

Reference: BFA Global worked with the National Microfinance Bank to optimize its delivery channels for reaching the low-income market, especially women. BFA Global completed the diagnostic of NMB's delivery channels and provided recommendations to enhance them for the savings initiative. BFA Global also delivered a financial model and analysis to support NMB's strategic decisions on the product and delivery channels.

3. Project Title, Country & Year: Brazil Agent Initiative, Brazil, 2013

Client: Bill & Melinda Gates Foundation

Sector: Agent Networks, DFS, MSEs

Reference: BFA Global as a client of the Bill & Melinda Gates Foundation worked with the Brazil Agent Research Initiative to obtain quantitative and qualitative research about financial access and the use of banking correspondents in Brazil. BFA Global carried out the following tasks for the project: translating the English questionnaire, piloting the questionnaire, conducting a 5-day training in Rio, implementing a 60-minute survey, providing a complete list of census sectors and their addresses with a sampling plan for specific households for interviews, and conducting a short survey and mapping exercising of the supply side in 30 random census sectors.

4. Project Title, Country & Year: Gender Data Stack & Women's Financial Inclusion, Egypt, 2018

Client: Central Bank of Egypt

Sector: Agent Networks, Women Employment, DFS

Reference: BFA Global worked with the regulators, supervisors and policymakers at the Central Bank of Egypt and other stakeholders to develop a framework with indicators and methodologies for collecting, analyzing and using gender-disaggregated data. In addition, the BFA Global team worked with these stakeholders to understand not only what gender-disaggregated data they liked to have but also how that data could be visualized to bring efficiency to the decision-making process. The project established an empirical, nationally

representative data set for women's financial inclusion in Egypt to:

- Set a baseline for women's financial inclusion.
- Inform policy decisions and support ongoing regulatory reform on savings mobilization, agent banking, mobile money and better usage of the national postal network.
- Inform initiatives in the area of new product development and innovative delivery channels specifically for women.

5. Project Title, Country & Year: NTP 3, Channel Optimization (Diamond Bank), Nigeria, 2014

Client: Women's World Banking

Sector: Agent Networks, DFS

Reference: BFA Global worked with the Diamond Bank to optimize its channel strategy through financial inclusion. BFA Global provided a high-level assessment to identify synergies, complementaries and areas of competition. BFA Global also analyzed the profitability of transactions via various channels, which was used to examine the economic impact of pricing and other key decisions. By reviewing Diamond Bank's existing agent and mobile banking channels and working closely with Diamond Bank staff, BFA Global came up with recommendations for the bank's growth. Additionally, BFA Global developed a generic Excel-based financial model to assess the profitability of a range of payments.

6. Project Title, Country & Year: PesaTransact Nano, Kenya, 2018

Client: PesaTransact

Sector: Agent networks, DFS, MSE

Reference: PesaTransact ultimate objective was to develop a new paradigm for the management of agent networks that is smart and data-driven, as it believes it will provide more value to the micro-entrepreneurs and shopkeepers that power the transactions. That should in turn generate more profits and faster growth for the network itself. For the main focus of the project, BFA Global explored the data with the perspectives of different PesaTransact stakeholders in mind. BFA Global's goal was to deliver live dashboards to assist those stakeholders in their operations. The dashboards would be fed directly from the databases, and their scope would be limited to the information contained in them.

7. Project Title, Country & Year: Financial Inclusion on Business Runways (FIBR) microconsulting, 2020

Client: Confidential

Sector: Agent networks, DFS, MSE

Reference: BFA was engaged to assess the pain points and opportunities that small merchants like to be advised on; Determine whether MSMEs would work with a digital micro-consulting model and determine whether this is a business value-add to them;

Identify what types of consulting models exist and could be applied to small merchants in urban/peri-urban areas in East Africa and understand the feasibility of providing such a service to small merchants. As part of the work plan, the FIBR team interacted with mobile money agents who owned retail shops for a span of six weeks, to understand their struggles, aspirations and business goals in detail. Interacting over such a timeframe helped to establish relationships with these agents allowing them to open up and share insights that might not otherwise be available during short interview sessions.

8. Project Title, Country & Year: Farm Pass: Increase uptake and usage of Farmers Digital Solution product, 2021 - 2022

Client: Confidential

Sector: Agriculture, Digital Financial Services, MSEs

Reference: BFA Global was contracted by a payments organization to facilitate the registration and enrollment of farmers onto a Farmers Digital Solution. BFA Global provided a project management role facilitating the registration of farmer producer organizations, training field agents and coordinating farmer registration and enrollment activities. As the project manager, BFA Global worked with farmer producer associations by incentivizing them to train their field agents on the Farmers Digital Solution platform as well as providing incentives to field agents to drive farmer recruitment and enrollment onto the Farmers Digital platform. The goals for the project included: increasing the pace of farmer registration on the digital financial services platform; drive usage for farmers by agents and validate the approach of linking large member organizations and incentives as a path to scale up the digital platform for the agriculture sector.

9. Project Title, Country & Year: Catalyst Fund

Client: Supported originally by the Bill and Melinda Gates Foundation and JPMorgan Chase, then UK Aid, and Paypal

Sector: DFS, MSEs, Education, Health, Agriculture, Agent Networks

Reference: Catalyst fund is managed by BFA Global and supports inclusive tech startups that provide affordable, accessible, and appropriate solutions for the underserved. Catalyst Fund has backed 61 startups, which raised \$446m+ in follow-on funding. Catalyst Fund SGBs have a survival rate of >88%, and have reached 9m+ underserved consumers. In Catalyst Fund 2.0, almost 40% of founders and co-founders were women, whereas across Africa only 15% of startups that received investment in 2020 had a woman on their executive team, and only 1% of women founders received VC capital in 2021.

10. Project Title, Country & Year: Catalyst Fund Inclusive Digital Commerce, 2020

Client: Confidential

Sector: DFS, MSEs, Youth and Women Employment

Reference: Launched in 2020 with support from our sponsor, BFA Global is supporting 6 growth-stage digital commerce companies in Ghana to create digital solutions benefiting micro and small enterprises. The companies created 14,845 jobs (35% for women, a 10% increase from baseline).

11. Project Title, Country & Year: Farmer network extended value chain evaluation, 2021 - 2022

Client: Confidential

Sector: Agriculture, Digital Financial Services, MSEs

Reference: BFA was engaged to create user personas for a digital solution serving farm and fishery value chains in seven countries. BFA Global prepared value chain maps and user personas that will illustrate transactions, pain points, and digital readiness. These user personas were required by product managers for the existing digital solution as they expanded to new sectors and new geographies. The value chains studied included rice, cotton, coffee, tea, cocoa, dairy, and fish. The geographies were India, Nigeria, Ethiopia, Kenya, Rwanda, Tanzania, and Uganda. BFA Global synthesized academic, industry, and policy literature into a succinct description of the value chains, highlighting how farmer producer organizations and licensed processors of farm products form a critical set of adopters for digital transactions in farm and fishery value chains. Through interviews with subject matter

experts, BFA Global Identified the major constraints facing value chain actors, the drivers of adoption for digital solutions, and ways that digital solutions can deepen trust and expand access to markets, finance, and inputs. The client used BFA's stakeholder personas to inform their product roadmap and adapt the existing solution to new markets and new stakeholders. "

12. Project Title, Country & Year: Home Grown & Digital School Feeding programme research, 2021

Client: Confidential

Sector: Agriculture, Education, MSEs

Reference: BFA Global mapped the value chains where smallholder farmers sell their produce in the East Africa region. The client required detailed analyses of the timing, location, payment methods, and data collection systems used in the rural value chains stemming from smallholder farmer produce. Using a combination of desk research and in-depth interviews on the ground, BFA Global analyzed the digital readiness of stakeholders across the value chain. BFA Global proposed key operational considerations for digital solutions that will maximize reach, efficiency, traceability, simplicity, and value added.

13. Project Title, Country & Year: Give2Asia, 2022 - Ongoing

Client: Confidential

Sector: MSEs, Digital Financial Services

Reference: BFA was engaged to advise and support local partners to develop app-based products to increase the financial health of gig workers and low income farmers in China. BFA has exclusive experience on Spring design and financial health work in other countries. BFA managed a technical assistance fund for the project and advised on the product development by 3 Sprint Designs. The app is expected to reach 20k end users (including gig workers and low-income farmers), helping to improve their financial health over a 2.5 years horizon. The project is also expected to introduce the financial health concept to China for the first time. BFA will publish 3 briefing notes and 3 blogs on the project's periodical insights. One final white paper will be launched during an international forum.

14. Project Title, Country & Year: Home Grown School Feeding Research Programme Rwanda, 2021

Client: Confidential

Sector: Education, Digital Financial Services

Reference: At a time of national scale-up in Rwanda, expanding from fewer than 100,000 to more than 3 million participating school children, a global philanthropic foundation hired BFA Global to study interactions between national program offices, local schools, and the value chains that produce food locally in Rwanda. BFA Global documented existing digital solutions along the value chain and the requirements of participating schools as concerned tenders, food purchasing, meal preparation, attendance, and programmatic reporting. BFA Global proposed key operational considerations for the digital solutions that will simplify transactions, improve efficiency, expand access to school feedings, and enhance transparency.

15. Project Title, Country & Year: Expanding Employment and Opportunity through Digital Centers in Kenya, 2020 - 2021

Client: Digital Data Divide (DDD)

Sector: Education, Youth Employment, MSEs

Reference: DDD and BFA aim to create a social franchise system of digital centers throughout Kenya, staffed with trained youth as digital translators. By making capital and training available to entrepreneurs and small-business owners, they will be able to start up their own digital centers to provide much-needed internet access to urban areas outside of Nairobi. Communities will be able to access the internet for employment, education, and e-government services, among others. Underserved youth will be trained in IT and soft skills and employed at the digital center to assist customers and manage its services. Beyond these immediate beneficiaries, we hope that as the centers build up their credit and the funding community will be more likely to grant loans to entrepreneurs and small-business owners. Through democratizing entrepreneurs' access to capital and communities' access to the internet, DDD and BFA are tackling the problem of youth unemployment in Kenya through investing in underserved youth skills and professional development.

16. Project Title, Country & Year: Market Readiness Assessment Study For DF+ in Uganda

Client: United Nations Capital Development Fund (UNCDF)

Sector: Agriculture, Education, Youth Employment, Digital Financial Services

Reference: BFA was commissioned to study market readiness for Digital Finance Plus (DF+) in Uganda, based on a framework developed by CGAP and McKinsey. The aim of the study was to provide information on the market conditions and opportunities for DF+ in Uganda in education, health, energy, agriculture, water and sanitation, and youth employment. It is envisioned that this information would help potential providers identify opportunities, leading to greater investment and development of DF+ services. To conduct the assessment, BFA took a three-pronged approach, combining 1) a desk review of the existing literature, 2) secondary analysis of existing data sources, and 3) stakeholder mapping and validation.

17. Project Title, Country & Year: CGAP Colombia Deep Dive Qualitative Research, Colombia, 2014

Client: World Bank, CGAP

Sectors: DFS, MSEs

Reference: BFA Global worked with CGAP to identify and map risks to clients from mobile financial services and branchless banking. An essential component of the project was an in-country visit to Colombia, where BFA Global conducted supply and Consumer Insights-side research. On the supply-side, BFA Global conducted interviews with the primary banks that offer digital financial services in Colombia, as well as regulators, industry associations, and an agent aggregator. On the Consumer Insights side, BFA Global used a combination of individual in-depth interviews and focus group discussions on exploring client concerns about the agent- and mobile-driven financial services delivery. BFA Global also executed human-centred design techniques that offered important insights into consumer views and preferences for more protective products and services. This research can serve as an important starting point to motivate dialogue between providers and regulators about client protection in branchless banking.

18. Project Title, Country & Year: Evaluation of DFI Strategy, Ghana & Uganda, 2019

Client: Opportunity International UK

Sector: DFS, financial inclusion for women

Reference: BFA Global conducted a macro evaluation of the DFI strategy based on a comparison to industry best practices and a synthesis of BFA Global's expertise from prior work in both countries. This was coupled with a micro evaluation where we conducted qualitative interviews with OI and their partners to evaluate progress achieved to date, extrapolate lessons learned, and synthesize insights in order to improve OI's overall digital financial inclusion program. The micro evaluation was conducted in the field in both Uganda and Ghana to directly collect information on their savings mobilization, IVR, mobile banking education, digitally-based loan application, and women-friendly agent banking. BFA Global then developed and delivered a strategy workshop for OI UK on how the overall strategy can be strengthened through lessons learned from their partners.

19. Project Title, Country & Year: Hustlers Financial Products, 2020 - 2021

Client: Shujaz Inc

Sector: DFS, MSE, Youth employment, Training, Credit

Reference: Shujaz Inc needed to undertake an action research project to target those hustlas with a high propensity to succeed to survive the crisis and rebuild their businesses. The research included a comparison group of hustlas who have not been identified as high propensity, which would allow us to understand whether the high propensity hustlas do in fact recover better from the crisis, generate employment for more people and repay their loans better. BFA Global supported Player First to identify young hustlers who are more likely to succeed using the propensity to succeed analysis. Through the action research project, BFA assessed if the propensity to succeed analysis correctly identified the hustlers.

20. Project Title, Country & Year: Approach to onboarding women's collective enterprises to e-commerce, 2020 - 2022

Client: Bill and Melinda Gates Foundation

Sector: DFS, MSEs, Women employment

Reference: The Gates Foundation commissioned BFA Global to understand the opportunity of e-commerce for individual and collective women-owned enterprises through linkages to markets, value addition to the production of goods, and improved productivity enabled through digital platforms. In the first stage (Phase 1), this project aimed to understand which categories of women producers in Uganda and India, and specifically which industries may best lend themselves to the benefits of digital platforms, and therefore serve as a motor of growth for these enterprises. In the second stage (Phase 2 and 3), we honed in on women collective enterprises promoted by State Rural Livelihood Missions (SRLMs) in two focus states in India to strategise and pilot tractable interventions for linking and retaining these enterprises on digital marketplaces.

21. Project Title, Country & Year: Women's Financial Inclusion in Ethiopia, 2021 - 2022

Client: Bill and Melinda Gates Foundation

Sector: DFS, MSEs, Education, Women employment

Reference: BFA Global was contracted by the Gates Foundation on behalf of the financial inclusion secretariat, of the National Bank of Ethiopia, to i) Deeply assess the underlying causes of low financial inclusion among women from various backgrounds; ii) Develop a list of practical initiatives, and iii) Develop a detailed implementation plan. BFA Global is undertaking a review of the financial ecosystem at a Macro, Meso, and Micro layer to determine the supply-side, demand-side, and legal constraints to women's financial inclusion. Findings from this assessment will inform the development of a list of practical initiatives, which BFA will collaboratively develop with the National Bank of Ethiopia and other financial ecosystem stakeholders to enhance women's financial inclusion levels in Ethiopia.

22. Project Title, Country & Year: Assistive Technology (AT) Impact Fund, 2020

Client: Department For International Development (DFID)

Sector: Health, Venture building

Reference: The AT Impact Fund, which is currently in the design phase of development, aims to improve access to Assistive Technology (AT) solutions in the Global South. The Fund was conceived out of the Department for International Development (DFID)-funded AT2030 consortium programme, led by the Global Disability Innovation (GDI) Hub. Catalyst Fund/BFA's role in the project was to advise

the AT Impact Fund on their startup acceleration program. Catalyst Fund/BFA supported the AT Impact Fund to; validate their investment process and advise on the ideal structure to deliver venture support to AT startups, landscape AT and non-AT investment pipeline to pre-select 10-15 AT startups for a second round of investments across Africa , review the three AT startups that have been identified and support in taking them to IC (review investment proposals) and determine the needs of each startup via 1:1 pre-scale workshop that will inform the support given to each company and the milestones to include in each grant agreement.

23. Project Title, Country & Year: SA Digital Spazas, 2020 - 2022

Client: JPMorgan Chase South Africa

Sector: DFS, MSEs

Reference: Informal micro and small enterprises (MSE) are crucial to fostering inclusive growth in South Africa's townships post COVID-19 as they account for 40% of economic activity in townships. To strengthen the resilience and financial health of informal MSEs (spaza shops specifically), BFA is supporting 3 growth-stage fintech innovators with grants and bespoke technical assistance to develop relevant digital solutions that can help spaza shops in South Africa's informal settlements to increase sales, operational efficiency and livelihood opportunities. To achieve this, BFA is supporting three fintech innovators in developing partnership with other players in the retail value chain to run innovation pilots focusing on digital stock management, digital payments and access to appropriate financial solutions. These solutions will help informal MSEs to (a) access working capital to purchase stock, (b) digitize business operations and payments to reduce operating costs and develop a data trail, and (c) connect with e-commerce platforms. BFA will hold a virtual convening to share lessons among tech partners and publish three blogs to disseminate insights from the pilots.

24. Project Title, Country & Year: Payments for Vaccine Campaigns, 2021 - 2022

Client: Confidential

Sector: Health, DFS

Reference: BFA Global was engaged to calculate the true cost of cash versus digital payments to health workers who are engaged in health campaigns and identify the biggest drivers of cost for cash and digital payments, and model how such costs may scale with the expansion of vaccine programs, replication of such programs, or extending support to existing programs. BFA Global documented the specific workflows used to pay frontline healthcare workers for non-routine immunizations. BFA Global built financial models of those processes that analyze the fully-loaded cost of using cash and digital payments for the wages, per diem, and incentive payments that are due to workers. The models provided the average total cost of payments, inclusive of allocated overhead costs, accounting and finance operations, and customer service. The cost/benefit analysis treated cash and digital payments on an equivalent service level, whereby cash payments were supported with additional services to provide the transparency, speed, and verification that is expected of digital payments. BFA Global will apply the learnings of our financial models to the most important non-routine immunization campaigns in Sub-Saharan Africa.

25. Project Title, Country & Year: Income-Linked Finance for TVET, 2019

Client: Financial Sector Deepening Kenya (FSDK)

Sector: Education, DFS, MSEs, Youth Employment

Reference: The goal of this nano project was to understand the value on the job market of the intermediate qualification, which may be sufficient to justify the intermediate cost of the program. BFA and our other Lynk who provides a platform for these workers to find jobs, aimed to pursue a project focused on understanding if small loans given to these workers would increase productivity and/or income for Lynk workers who receive the loans. We were enthusiastic about this project because it links a potential lender with low-income workers and provides them with

the tools to increase their productivity.

Nic Wasunna

Senior Consultant

Bankable Frontier Associates, LLC