

Interviewer

Jaki Mebur, Market Engagement Manager - GSMA

Guests

Hamse Koshin, MEAL Specialist – [Care International Somalia and Somaliland](#)

Ali Bosir, Head of Business Development – [Telesom Somaliland](#)

Intro *You're listening to the GSMA Mobile for Humanitarian Innovation programme's podcast.*

Jaki Hi everybody and welcome to our podcast series on innovation in the humanitarian space. You're listening to the episode on adopting new technologies in humanitarian assistance.

My name is Jaki, from the GSMA's Mobile for Humanitarian Innovation Programme, M4H, and I specifically work in strategic partnerships and how they can lead to the adoption of digital humanitarian assistance.

So, adopting new technologies into humanitarian programming is usually a great opportunity and it can enhance the quality, the efficiency and accessibility for vulnerable populations. However, as we all know, adopting new technologies can actually increase inequalities if not designed to be very inclusive and actually more sensitive and more specifically in a humanitarian context.

This podcast will specifically look at the base humanitarian principle of 'doing no harm' and then how do we adopt that into a digital and technological space. And then further look at the sustainability concerns from digital and mobile service providers. So onto the podcast.

Today we're joined by two guests from CARE and Telesom in Somaliland. And I am very happy to have them introduce themselves and tell us what they do. We shall start with our guest from CARE.

Hamse Thanks Jaki. I'm Hamse Koshin, and I'm the MEAL specialist for the emergency programme in CARE International in Somalia and Somaliland. In CARE, we actually do a lot of humanitarian response in Somalia.

Normally, I provide response to the different emergency situations that normally arise in Somalia, including conflicts, the natural disaster related conflicts, drought and floods, etc.

So, a large portion of our response is cash and voucher where we provide people in need cash assistance so that they can manage their food security and can fulfill the different household needs they have.

The main emergency response we do, we also do water sanitation and hygiene response, response related to health and nutrition, protection and other livelihoods. We also work for the education sector and employment and also women empowerment.

Jaki Thank you very much, Hamse, and over to our next guest from Telesom, please introduce yourself and tell us what you do.

Ali Hello, and thank you Jaki. My name is Ali Bosir I'm Head of Business Development at Telesom. And Telesom is the leading mobile operator since 2001 in Somaliland. Telesom has been providing infrastructure services to different types of NGOs and also the government. We have almost 85% coverage of the whole country and many, many other different services as well. Thank you.

Jaki Thank you, and just building on that, Telesom has been supporting humanitarian assistance in Somaliland for several years. So what is it about this particular work in the humanitarian development space that has kept Telesom engaged? Why do you do this?

Ali Telesom has been serving the Somaliland society in their different levels, and we feel that we have a responsibility towards our society. And for that reason that we also connect with the humanitarian projects since then.

After the establishment of mobile financial services, our [ZAAD platform](#), there was a demand from the international NGOs to use our ZAAD platform for humanitarian projects. And that's where the partnership started with the NGOs and providing mobile financial service towards the cash assistance project. And from there on, we started also providing more solutions and more services, and we wanted to take this to the next level.

Jaki Thank you, Ali. And so it is clear from what you've told us that technology is clearly a tool that supports humanitarian programming.

Hamse, can you tell us about CARE's experience in adopting technology into humanitarian programming?

Hamse Actually, we have first experience in engaging with the mobile network operators in Somalia, mainly Telesom in Somaliland, Golis in Puntland and Hormuud in South Central. So we have been engaging with them in the last seven years or so, for our cash assistance programmes. So we have been working with them to transfer cash to our beneficiaries using their mobile money transfer platforms.

So we actually felt like their platforms, their mobile money transfer platforms has been really integral for us to deliver this assistance in a timely and efficient manner. For instance, before the mobile money transfer platforms has not been developed by the mobile network operators, we used to deliver cash physically, and there has been a lot of problem. And the main thing that it has improved is actually the safe delivery of cash assistance. And now that we are using the mobile money platforms, we send money to mobile wallets for the beneficiaries.

So people now, they don't need to go to their branch, and the remittance offices to collect their cash. So the safety and security for the beneficiaries has really improved as they used to travel long distances to collect their cash from the remittance offices. It also improved the transparency and accountability at community level and at the donor level. Now, it's clear that people are having the right amount of money they are entitled to, to the right time. So it has improved the accountability that we actually prioritise at community level and in the eyes of the donor.

It also improved the efficiency and delivery. Now, we have actually saved a lot of resource and time when it comes to using the available mobile technology services that are available in Somalia. It also provide at the community level, these systems, they provided flexibility for the beneficiaries to buy the different goods they want from the different markets they can access. Even they can actually buy things from remote markets. In Somaliland people can exchange their money from USD to Somaliland currency.

In that way, it actually provided the mobile platform that they are using has provided actually a great flexibility for them to use and utilise the money they are receiving. It also builds the community capacity in actually accessing the financial systems in the country as they use the wallets they have as a saving account, as normally did in the bank. So it really improved our services. And that's actually the positive experience that we have in using and adopting the technologies in the humanitarian sector.

When it comes to issues that should be considered, one thing that's really very important to consider is actually the access. And in Somaliland a large people of the Somali people have access, good access to mobile services. In addition, the network coverage is also good. So in Somalia, in most areas, the network coverage is strong and people can be connected to the mobile services or to the mobile antenna.

Another important thing to consider when it comes to considering in adopting mobile technology is the preference of the community, particularly for the transfer modality. People might be preferring physical delivery of cash, they might prefer transferring cash or delivering cash through banks, or mobile networks.

As CARE, we found in our assessments and the research we do that close to 95% of our beneficiaries prefer to get their money through mobile systems using mobile money transfer platforms. This is actually an important aspect to consider for adopting or when a company or organisation is thinking of adopting mobile technologies.

The last thing I would say to consider is the technical competency of the mobile network operator to deliver bulk cash and its ability to fix problems in a timely fashion.

Jaki

I think we can move over to Ali. Looking at, what does a mobile operator consider when you go into the kind of partnerships, like the one you have with CARE that we'll talk about, on adopting technology into humanitarian programming or development work? What do you consider when you think about a potential partnership before you adopt it?

Ali

Well we strongly believe that technology in general and mobile technology in particular is meant to change people's lives, and mobile technology also brings equal opportunity to everyone in their own scale. So our mobile technology services are accessible to everyone. And we do provide digital identity and financial services as part of the financial inclusion activities.

So this means that we have registered almost everyone in the remote areas especially where they have a digital identity and part of the financial service platform. And this makes Telesom the perfect partner for humanitarian projects. Those NGOs that are working in the area of the cash assistance is where we really want to showcase and bring new technologies that will support their activities as well, and use our platform in a more flexible way.

So our goal is really to reach those NGOs to execute their projects in the best possible way, without any fear of security or other efforts that has been mentioned during the challenge of the cash assistance project in this field.

Jaki

Thank you, Ali. And now's a good time to look at a specific example of what adopting new technology would look like.

CARE and Telesom, supported by the GSMA M4H programme, have really successfully piloted the use of voice identification in the verification of beneficiaries of mobile money cash transfer in Somaliland.

So Hamse, could you tell us a bit about this voice ID project and what challenges it was looking to address?

Hamse

The challenge we are having when it comes to our cash assistance programmes is collecting the payment verification from different beneficiary. Normally we send teams to the field to collect this verification from the beneficiary upon they receive the transfers. So normally it takes like two weeks to do this work.

It actually has a logistical nightmare where we have to actually hire a number of vehicles and people should be given their DSAs [Daily Subsistence Allowance] along with this while they are in the field. And it really takes unnecessary time to close these financial documents with our finance teams. So this is actually the challenge and the nightmare we are having.

The voice ID was actually about to address this challenge. The voice ID project was an idea that as CARE we came up and we wanted to expand our biometric system. We used another biometric system for registration which is called the Beneficiary Biometric Registration System [BBRS]. So we proposed that while we are doing registration using the BBRS we also want to collect another biometric data from beneficiary which is their voice ID.

So at registration people will record a selected phrase and then when it comes to withdrawal or transferring the money, they will speak the same phrase that they did or said during registration and after they did the same phrase the system will automatically recognise, and the money will be sent automatically to their wallets.

So in this system we will not be required to go and send teams to the field to collect the payment verifications from the beneficiaries. So the system will save us the resource, it will save us the time and it will help us to liquidate the financial transactions in a faster way. So this is actually the challenge we used to have and how it will specifically address our challenge.

Jaki

Thank you Hamse. Can you tell me for example, if you had a field officer from CARE was going out into the field to look for beneficiaries to verify what would that look like?

How long would they have to work? What are the chances of them getting everybody they were looking for to verify?

Just to understand how it feels like from the field teams' perspective...

Hamse

Normally, for instance, if we want to collect this payment verification, normally we are assigned an officer for this work. So he should have to look for travel approvals. It might take like a minimum of two days to get these approvals... the logistical arrangements on time. He will also have to get some allowances while he is on the field.

We are working in very remote regions. We are working in the three eastern regions of Somaliland, for instance. And so, if he go from Hargeisa or if he go from Burao it might take him two days to reach to the field. It might be another two days to collect the payment verification and another two days to come back. So this is like six days to collect two or three districts from these payment verifications.

And after he comes back then he actually wants to just sit down with the finance go over all these names and these thumbprints one by one, see the corresponding amount, the dates... all these things. So it might also take another two days to collect these things. It might take an average of eight to ten days to finish this work. But this system will help us, it's going to release their money and record the payment verification at once.

So when the person says the phrase, he will receive the money at the same time. So we are not required to wait any minute or any time to get this payment verification. So it's really time saving. It's an easy way to close these financial transactions with the finance guys.

Jaki All right, thank you very much and you know some clear advantages in terms of operational overhead in using this voice ID.

So, Ali, as you know, the builder of technology, what was the process that you went through in order to design this kind of solution and why did Telesom make the decision to go ahead and produce this solution?

Ali We kicked off a new project to develop a voice ID technology. There was immediate challenge already coming up, which is the first one to start with - the voice ID technology needs to understand the language that needs to be identified. So we have to build a new language, Somali language, that does not exist and building a new language means that you need to train the platform to understand Somali language.

So that is where we started from, developing the Somali language. And that meant also to consider all different dialogues that are speaking in different regions so that this voice ID project can be used in every region. And that took some time to collect some different voice prints and train the system and also repeat the process several times so that we have the level of accuracy that can be used for commercial purposes.

So after going through that process, we came to also develop other technologies that will help us collect the voice print from remote regions and everywhere where the beneficiaries are. And that was also another process and after that, we came to test the project with the CARE International, in this case. And the most challenge thing that we were worried about was the adaptation

of the new technology. And that really went well after testing internally the system and then going ahead with the live project with CARE as a pilot project.

The results were amazing and the adaptation level was very high. And what we found out was that the fear we had before was not there anymore, because the success rate reached over 90%. And that was really a result that amazed us all. And the reason for that is Somali people are oral society. So anything based on voice is much easier to use rather than other technologies that needs other type of interaction. And also the type of device needed by a person is only a basic phone and that made everything also easy.

And the reason using voice ID was that the other biometrics required separate devices and going to a remote region is also challenging and what if the biometric identification fails while you are in a remote region? So in terms of voice ID, you don't need to take a separate device to identify the person, sorry. And only using a basic phone with a telecommunication infrastructure that will bring the solution in and also do the identification at any time, at any place. That is the long story short as I described the process.

Jaki

Thank you for that, if we could maybe add a little more to your long story, can you describe what you saw to be the experience of somebody when they tried voice ID for the first time and be successfully verified and they received their cash?

Can you try and put us in the shoes of the recipient and how they experienced it?

Ali

Yes, the experience of the voice ID It was very vital to us at the beginning because the way we define the process was to shorten the identification time and payment time, instead of the way it used to be before.

Once the person identifies themselves, they will be immediately given cash automatically through a mobile financial service. And this has given, to the beneficiaries, a good experience really because they were not expecting this to happen this way. By just saying a passphrase and then immediately being identified and getting cash was giving them a good impression for the second cycle to believe in this technology more.

We have been ourselves in the field for the first time when we established the voice ID, and of course the challenge was people getting to understand what voice ID means and all the fears and suspicious things can come around that, why you are recording our voice and what you are going to do with our voice, and all these things were a big challenge at the beginning. But then when people started to use the technology and say the passphrase and being identified and getting the payment immediately, was really good result and good experience for them and for us as well.

Jaki

Thank you, Ali. And now looking like no technology solution is 100%, you know it won't treat everybody 100%, there are certain groups of people that will specifically be challenged in the use of new solutions.

So, how has your experience been in the adoption of voice ID and specifically looking at traditionally marginalised groups, such as the old people or the people with disability - how has their interaction with the platform been? We can start with you Ali.

Ali

Yes, well, as you said, of course, no technology is 100% solution. So there will be always challenge and there will be always people who are excluded from using technology by any other reasons. So, what we have seen so far, there is small margin, not really in everyone but we have seen small margin, especially aged group that are always difficult to use any sort of a technology. But with the voice ID technology they use it, is really very simple because calling another person is something that they do every day.

So, that's not an issue. It was a normal thing. And also saying the passphrase is also an oral thing, so that's not a challenge for them. So these two things are okay even with the aged group, but there are some cases that happened during the implementation of this project.

For example, in some regions where people have been registered before, and then when it came to the time of payment to identify themselves, the system refused to identify them, although they were registered in the system. And some of the reasons that we found out was the type of phone used.

There were some particular mobile phones used that the level of the voice frequency was not clear enough so that it was not able for the voice ID technology to identify such kind of a voice. It thinks that this is a fraud or pre-recorded passphrase instead of a real time passphrase. So this was one challenge.

And the other challenge was some people getting sick with the cough and the voice tone has changed so that the system could not recognise them. And the other challenge we have seen which is really the common one is, especially with the aged group, that they have difficulties remembering the passphrase.

Although we made the passphrase very easy to remember, but for those groups it was difficult for remembering the passphrase. So, these are the some of the cases that we have seen.

So in terms of the usage of the technology was not a challenge for anyone. But in terms of the saying the passphrase or having changing the voice tone, so that was a problem for some people. But the rate of the usage and success rates are really very high and very impressive.

Jaki **All right, thank you Ali. Hamse, are there any barriers that you think need to be addressed anymore other than the ones Ali has said?**

Hamse I think most of the barriers are those Ali has mentioned. One thing I actually want to highlight is the confidence of the people in using the system. People, initially and while we were at the mobilisation stage, before we do the actual registrations, when we face and meet the community, we felt like some people might not be confident in using the system because of that, because of actually their low literacy levels, as the system is so much simplified, and after they used they actually built their confidence, and they found out that the use of the system was actually quite simple for them to use.

And having the community confidence is really a very critical thing. And in the second phase of the piloting it was an issue that we prioritised. And our teams from Telesom and CARE who were participating in mobilisation and registration were actually raising awareness on actually how the system's simple, what it can help, how it would be useful for them to get their money in a more faster way. So the community had acceptance and their confidence is also a critical thing.

One thing I would like to add on Ali's point is that yes, we found out that elder people have difficulty in remembering or in pronouncing the phrase in the right way. Telesom enabled us, they created a system where we can login and see how the system is going on, how many people are able to withdraw their money.

And for those people who are not able...who are unable to withdraw their money, we can call them and trace them so that we can know the challenge they have. So from there, it gave us an opportunity to track people who have difficulty in remembering or in pronouncing the phrases in the right way. So we have actually another system where we can still track those people. In the first phase piloting, we found out in the first day of the transfer only 2% of the population have withdrawn their money.

In the second transfer this are really improved where in the first day of the transfer 8% of the beneficiaries withdrew their money. So this has been actually a good advancement and people becoming aware of and they were becoming literate on the use of the system. If we have someone who is unable to record his voice, maybe he's deaf, or his voice is not well, we have a waiver at CARE where we can actually accept another member of his close relative can record instead of him.

And that's actually the same way that we used to use for the beneficiary registration system where we are collecting people, their thumbprints. So we have these internal arrangements to actually cope with the gaps that we are having with the system. Thanks Jaki.

Jaki

Thank you Hamse, and to the both of you, it's an amazing project that CARE and Telesom have embarked on and this voice ID verification really has the potential to change the humanitarian space.

And just a last question for the both of you, if you had an endless amount of time and money, and we can start with Hamse, what other kind of technology would you put into humanitarian programming, if the opportunities were endless and you're thinking as widely as you possibly can?

Hamse

Thanks Jaki. And having seen the flexibility that the mobile technology now the version we're are using has provided us, one thing I would actually think of to integrate is actually using mobile systems in the mass communication and awareness raising. Now we work with the communities who are living in the very remote areas, but actually we are in the process of thinking, designing the community awareness raising sessions in a system that's more compatible with the mobile versions.

So these are actually one of the key things that we are having in our mind to engage with the telecom companies and see how actually it works. We're really confident that everything is possible in this sector. They can actually do a lot of good things to the humanitarian world.

Jaki

Thank you Hamse. Ali, over to you...

Ali

Well Jaki, there is no limit for technology and we would like to provide something, a solution that is fully transparent and goes all the way from the donor to the beneficiary.

And you can do everything in a very flexible way so that there is not any kind of a barrier between the donor and the beneficiary. So this is what we would really look to bring into the humanitarian sector.

Jaki

All right. Thank you very much Ali and thank you very much Hamse for taking the time to talk to us today.

And to everyone else who is listening thank you very much for joining this M4H podcast. If listeners want to find out more about CARE and Telesom's work in using voice verification and other work from M4H please visit www.gsma.com/m4h and thank you for joining us.