



Barriers to Mobile Money Transfer Uptake in Ghana

Presentation Transcript

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Female: So I would like to introduce the panel. We have Maria Stephens of USAID as a moderator today. Maria Stephens is a senior technical advisor at USAID, where she serves as an expert in emerging payment systems, risks, and regulatory issues. Prior to that Maria has served in treasury as a financial economist and she has a bachelor's degree in Greek, Latin, and Old Irish from the University of Massachusetts, and also master in financial economics, American foreign policy, and Mandarin Chinese from ____ Johns Hopkins.

We have Dr. Vivian Dzokoto, who is joining us today here from the Virginia Commonwealth University. Dr. Dzokoto is an assistant professor at the Virginia Commonwealth Department of African-American Studies in Richmond. For the past two years she has also been a researcher, done research funded by Institute for Money, Technology and Financial Inclusion in UC Irvine. Her money-related research has explored various individual level aspects involved in adapting to currency, region nomination, and mobile money adoption. Dr. Dzokoto has a PhD in clinical and community psychology from the University of Illinois.

And we also have a remote presenter joining us today, and Edwin "Cliff" Mensah is joining us from the University of North Carolina at Pembroke. And Dr. Mensah serves-

Male: Hello.

Female: Hello, Dr. Mensah.

Male: Hi.

Female: So he will be presenting after Dr. Dzokoto today. And Dr. Mensah serves as an associate professor and interim chair of the Department of Economics Finance and Decision Sciences at the School of Business at the University of North Carolina at Pembroke. He has his PhD in economics from North Carolina State University. Thank you so much.

Female: Welcome to EPS Speaker Series number six. And I'm really thrilled today to have these two speakers, because I think we're going to be able to switch gears a little bit and focus slightly away from the previous discussions on legal, regulatory, and enforcement capacity elements that would need to be in place to make any payment system successful. And now we're going to look hopefully at a broader set of issues that underpin all financial transactions. And when you really think about it, what is the basic necessity for any type of human transaction? It's going to be trust, and it doesn't matter if it's me writing you an IOU for my lunch money today or if it's me asking to borrow your car, it's all based on your trust.

And so the whole concept of mobile financial services needed to be as undergirded with this basic element of trust.

So what I want you to do when you listen to this presentation is think about what elements would need to be in place both to earn that trust and to maintain that trust. And then following on that, what would need to happen if that trust is violated, and then think if there is a role for the public sector in complementing any private sector efforts to earn and maintain the trust for people to buy and use their products. So with that in mind we are, I think, every fortunate today to have the perspective of both an economist with Dr. Edwin Mensah, and a clinical psychologist with Dr. Vivian Dzokoto. And I'll let them take it from here.

Female:

Good morning to everybody in D.C. and good afternoon and evening to our listeners in different time zones. So Dr. Mensah and I are going to be talking about the experience of mobile money uptake in Ghana specifically; that's our research field. I'll take probably the first 30 minutes and then Dr. Mensah will finish up with 15 minutes.

So as we know, mobile financial services work on the platform of mobile phones. I found out and I was intrigued to find out that globally there are about 5.6 billion mobile phones right now, and in terms of investment this is a very lucrative arena because you have data service revenues totaling \$314.7 billion per year, and it's estimated that you're going to have about \$7.4 billion mobile connections by 2015, with revenue increasing to \$552 billion per year on a global level. So obviously mobile rule the world if you think about it.

So mobile financial services have been possible because of mobile phones, and it is estimated that by 2013 500,000,000 all across the world, mostly in developing countries, will be customers of some sort of mobile financial services. It has also been lauded as a very good conduit for financial inclusion, especially in the developing world, because it provides access to the bank. And so mobile financial services are now exploding in the developing world, and you hear about new countries adopting services every day. I did a search this morning, the most recent conversations about starting mobile financial services are in Somalia, but there's always going to be stuff going on in other countries which is not available on the Web.

So the question for today is, or one of the questions I would like you to think about today is what exactly informs mobile financial services used? How can we tell if somebody is going to use a mobile financial service or not? What are the kinds of things that predict it? And since I'm an academician I have to go to theories, and there are a bunch of theories that are relevant and I will go over some of them really, really briefly. One of

them is the product adoption theory, which talks about different stages, that a customer has to be aware of something, become interested in it, have an opportunity to evaluate whether the product makes sense, then try it, and if they like it they might use it, right? So that's one theory.

But there are also ways in which people can try things and still not use them, and so Rom and Sheth have argued that there are some barriers to product use, some of them can be functional use; the product is just not designed in a way that makes sense. There can also be values, that there are certain things that people value that the product is just not consistent with. There are also risk barriers, so thinking about negative things that could happen as a consequence of using the product, and then there are just some psychological things, like traditionally people haven't used it, and therefore people won't use it. So these are some arguments that have been used to explain why, even if a product seems brilliant, people may not choose to use them.

But it's actually been found that people are getting faster at new technologies. We are in the technological age. It took 89 years for 150 million users worldwide to use a telephone, but it's taken only 2 years for Google Earth and Skype to become widely used by the same number of people. It took Facebook 5 years, iPod 7 years, 14 years for the cell phone. So the question is how long is it going to take for 150 million users worldwide to use mobile financial services? Is it possible? Will it happen? What are the barriers that would prevent this from happening?

Other theories include the technological acceptance model, which talks about things like perceived usefulness and perceived ease of use shaping the behavioral intention to actually use a product. So that's something that people need to think about. And then there's an even more complicated model by Vancatesh et al, and they incorporate the technological acceptance model, but start thinking about all the extraneous variables that could affect what could shape the perceived usefulness of a particular product, like output, quality, and demonstrability of results, etc.

There's another theory which talks about the fact that before people decide to use an innovation they go through a decision-making process. I'm not going to go into details about that. But one thing I did want to point out was Rogers's theory about innovation adoption, where he says that no matter what the innovation, not everybody's going to adopt it at the same time. You're going to have 2.5% of the population adopting it first; they're the innovators. Then you have the early adopters, then you have the early majority, the late majority, and then you have the stragglers, like he calls them the laggards, who may or may not ever actually, you know, use the product. But that would be for a product that's relatively successful and

not – this wouldn't be the distribution for one that has a low acceptance rate.

So what about mobile financial services? What are the kinds of things that shape the adoption of mobile financial services? There's one model that I've seen by Macardine 2011 that talks about levels of awareness and having individuals move through different knowledge levels. So potential customers will not be aware of a product, move to awareness, move to understanding and knowledge of it, and then try it before regular use. So as you can see, there's an overlap between a lot of the theories that I just talked about.

There have been a few studies that have specifically focused on mobile financial services and the factors that predict the use of mobile financial services, and some of these identified factors have included the distance from banks or agents, in other words how accessible is the service. Secondly, geographic location of members of households, _____ mobile financial services are used a lot in the developing countries for remittances. If you have people staying far away from each other then it makes sense to use the mobile financial services; if they're not then they can just walk over and give people the money.

Price structures, how expensive is it to actually remit money is another thing that is important. And then there is the issue of trust. If people don't trust the product, they're not going to use it. Understanding and perceptions of technology in general have also been found by Evetrie and Pickens to shape the likelihood of an individual using mobile financial services.

Okay, so now we're going to give you the example of Ghana in West Africa, where 73-percent of Ghanaians live in an area covered by mobile phone services. So that's pretty nice; it sounds like that would be a good place for mobile financial services to take off, because there's wide cell phone coverage. Mobile phone penetration in Ghana in 2008 was estimated at 65-percent. It's gone up, and I'll tell you what the rate is in a minute.

Ghana has been described as a very competitive mobile market. There are currently six mobile phone in Ghana and the most recent one is GLO. And the mobile phone – not mobile financial services, but the mobile phone itself has been integrated into Ghanaian life in very interesting ways. So of course people use it to keep in touch with their families, but fisherman have been found to use the mobile phone to improve the efficiency of their business. So before mobile phones became widely used in Ghana, fishermen used to go out to sea in canoes, like the one that you see in this picture, catch some fish, and then throw them back into the sea,

rather than bring them to shore, if they realized the market was bad and so it wasn't worth their time. Right? So a waste of effort. But now what the fishermen do is that they can call ahead when they have the fish, find out where the markets are, find out where the most profitable markets are, and then sale to those places and then make the most money. So even in the, you know, small scale fishing industry mobile phones are being used.

A lot of people in Ghana have mobile phones. There's widespread mobile phone use, and so it suggests that the Ghanaian market would be ripe and would be perfect for the successful introduction of mobile financial services. One of the reasons, of course, would be the case of Kenya, right? Because everybody knows that Kenya is one of the countries where mobile financial services has been very, very successful with – and also the uptake was really fast; you had 40-percent of the market share being obtained within two years and about 13 million subscribers and users of mobile financial services in three years.

So Kenya is in Africa, Ghana is in Africa, how different could they be from each other? And also it's been increasingly recognized that mobile financial services can be used in various global financial inclusion efforts, especially in places where there are large bank populations. And guess what? Ghana has a large bank population. In 2008 80-percent of Ghanaians were considered to be un-banked, which is 2.2 million in a population of 23-million. That doesn't necessarily mean that, you know, Ghanaians don't save, but most people keep their savings out of the formal banking system, which is fine, except when there is a fire and you keep your money under your mattress, then it's all gone. Which happened. It happened in a market, you know, traders lost not only their wares, but the money that they were saving was just gone.

So we're not actually going to go to this link, but this link has current information about financial inclusion in Ghana. This was done in 2009; information indicates that the percentage of unbanked Ghanaians is currently 63-percent, so it's still pretty high. So the question to you is this, we have a case where there's high mobile phone coverage in Ghana, 73-percent. We have high mobile phone market penetration; the current rate is actually 85-percent; 85-percent in December of 2011. There's low financial inclusion; 63-percent of Ghanaians are unbanked. And mobile financial services have done well in Kenya. So does this mean that there will be a successful introduction of mobile financial services in Ghana? That's what we're going to explore.

So to answer this question and fund it through research funded by the Institute of Money, Technology, and Financial Inclusion, Dr. Mensah and I went to Ghana and did a qualitative study looking at the awareness of mobile money, attitudes about mobile money, and studied the uptake

barriers and the impact of mobile money one year after it was launched. Now it's kind of complicated when we talk about when exactly mobile money was launched in Ghana, because it was launched once, but nobody really heard about it, and so it was re-launched in 2009. So we're taking 2009 as the official start, even though mobile money, there was an attempted launch before 2009.

At the time of data collection, which was summer of last year, we had three telecom companies involved in mobile financial services, and a fourth was getting ready to roll out its product as well. But in order for you to understand our results when we get to them, it's important to understand what I call the Ghanaian moneyscape, kind of money behaviors in Ghana, the history of money, the history of peoples' relationship with money, and different forms of money in the Ghanaian context.

So one of the things that we've documented in other research, Dr. Mensah and I, is that there appears to be for different historical reasons which do make sense within the Ghanaian context, a consumer resistance to new money products in the sense that it takes a while for Ghanaians to accept a new form of money. Case in point, 2007 Ghana redenominated its currency. One of the reasons was the old currency was too bulky. The new currency was more portable, and so the new currency was physically easier to use, but not psychologically, because even today if you go to a market in Ghana you probably get the price quoted to you in the old currency, and this is five years after the actual – so people do the transactions in the new currency, but will tell you the real value in the old currency, so if you're not good at doing the conversions in your head you'll end up having – you might make a financial loss.

So it does take a while for there to be a behavioral and psychological transition to new forms of money in Ghana. And the same thing has also been found in cashless forms. So Ghanaian banking institutions tried to introduce debit cards so that people didn't have to use large amounts of cash; didn't work. Credit cards haven't worked either. It's just really difficult. There is a preference for cash in Ghana and there's a high concern with fraud. And not fraud at an institutional level, but more in the form of, you know, like the Nigerian 419 scam-type fraud concerns. But people are really concerned about the fact that if somebody were to write somebody else a check, as Maria was saying, in terms of an IOU, how do you know the check is valid? What if there is no money in the person's bank account? Which does happen a lot. And so most people prefer cash because it's reliable. If you give me the money I can see the money, I can touch the money, I have the money. If you give me a check, eh; if you give me a credit card, what if the transaction doesn't go through? What if

there is a power cut, which happens a lot in Ghana, what if the point-of-sale machine doesn't work? So people prefer cash. It's safer, you see it.

So the question is electronic money, money on a mobile phone, is it going to work? We sampled 35 low-income Ghanaians, 35 higher-income Ghanaians, not necessarily wealthy, but sort of middle class, and then we got such interesting data that we decided to interview other people that we didn't initially intend to interview. We included 25 merchants, so these were sort of upscale stores, and then also 25 market women, people who were supposed to be selling mobile money services, and then also places where in theory you could use mobile financial services to pay bills. So we went to all these places and interviewed people, and we did some document reviews and interviewed one company rep.

So before I explain the results I just want to remind you that this is a qualitative study, so you're not going to see a lot of numbers. And the goal wasn't to see how many people in Ghana were or were not using mobile money; it was more to listen to the stories, listen to what people were saying, what people were thinking about to understand at a personal level what was going on. And so that was what we did. And we got a lot of interesting interviews and we had a lot of themes. These are some of the major themes. So there was not a unanimous perspective on use of mobile money; some people said yes, they would use it, some people said no. But what we found was that a lot of people were actually ambivalent as to whether they would use it or not. And a lot of barriers to use came up, and we also found that there was a huge difference in the kinds of knowledge that people actually knew about mobile money.

So I'm going to walk you through examples of each of these from our interview narratives. So there were a bunch of people who said "Absolutely not. Mobile money makes sense. I understand why, you know, people would use it, but I am not going to use it." And so the nice thing about doing field interviews and having lots of time to spend with each person, I was like, "Well why? What's the problem? What would make you use mobile money?"

And we had one female, Arincella, who basically said, "It's like when you have many dresses but you have your favorite dress. You prefer one to the rest. You don't necessarily wear all the other ones." So even though she knew it made sense, she preferred cash and she was going to use cash.

There was a vulcanizer; these are people who repair tires. He, in one interview he said, "As for me, I would like to keep my money in the bank. I cannot trust mobile money. If someone pays and sends you money but it never comes, you lose." Now the funniest part of this whole thing was that he actually did not have a bank account yet. He aspired to have a

bank account, didn't have a bank account, but he was like, "Even if I have the money I will do the bank. Mobile money is not an option for me."

Okay. But then there were some who said theoretically yes, they would use mobile money. And the advantages that they identified was as follows, two examples; I can't tell how they sent the mobile money, that's why I haven't done it yet. I'm amazed by it. But if I try it and it's able to come through then I would say that their claims are true, so then I would use it. And then a public servant said – so this is talking about – so this is a person that has a bank account and talks about the problems with physical banks, "At the bank or even Western Union, if the cashier is angry with you or you make an error on the form you can imagine what will happen," right, so banking errors and stuff like that," but you can transfer at convenience with mobile money. So in a sense there's a recognition is actually way more convenient than going to the bank, standing in a line, hoping that the cashier is having a good day and not a bad day and all that stuff."

But the majority sentiment is one of ambivalence. One person captured it perfectly, "Somehow it's good, but somehow it's not good. I think every system has its advantages and disadvantages. And it's convenient, but the truth is mobile money will be my last resort. Preference for cash."

Okay, so looking through the data set, here were some of the barriers listed of barriers to mobile use. Some people said, "Well, I don't have money, so, you know, it's not even issue." "Wouldn't use mobile money, don't have money, can barely survive." "Not enough knowledge about the product." "Lack of trust from the product," and there was a wide range in the lack of trust. There were some people who were not sure it was safe, and so were willing to be convinced that it could be safe, but then there were other people who just said that it wasn't safe at all, and so there was nothing that could be said to make them believe that it was safe.

Some people made a very interesting point that cashless, the cashlessness nature of mobile money would cause them to spend more money because they wouldn't realize that they were actually physically spending that money, kind of like swiping a credit card kind of thing. Some people said that they had no one to remit money to. Preference for cash was a theme that came up over and over, "I just like cash." Some people said, "Well, I sort of haven't gotten around to it yet, didn't think it was that important." And then there was, "What if I lose my phone, then what happens to my mobile money?"

In terms of levels of knowledge there were some people who knew a lot about it, but most people didn't. So some people didn't even know who was a _____ mobile money and how one would go about doing a mobile

money transaction. There were very few people who had actually used mobile financial services, and the only way that we ended up getting to interview people who had participated in mobile financial services was by staking – basically doing a stakeout in front of venues where people could do transactions and then stopping people as they came out and saying, “Did you just do a mobile financial services transaction? If you do, can we please interview you?” Because just trying to interview random people on the street, we did not get anybody who had used mobile money at all.

Here’s some data from the high income group; there was one person who had used mobile money who thought that mobile financial services were cool, “It’s cool, safer, and faster than other forms of money transfer. When you are paying utility bills you can just sit in the comfort of your home,” and that’s because in Ghana utility bills are typically not paid by mailing in a check; you physically have to go to the office and pay cash.

But in our entire sample, this includes the 70 high income, low income, and the 50 merchants and market women, less than 10 people had used mobile financial services. One of the things that we found with the high income group was a lot of concerns with problems related to technology, what if there’s some hitch at a different level, either on the phone, through the transmission services, logistical hitches, what about fraud, what about human error. So there are a lot of concerns with that.

There was also, interestingly, a very low awareness of the global context of mobile money. Most people, when we asked them, “Do you know or have you heard about any other country that uses mobile money?” people just assumed it would be the United States, because, you know, and some people said, “Of course it would be the United States” or, you know, the Western world or Europe or whatever, “They’re more developed than us, so they would probably use it first.” But everybody did recognize that it would be a very good way of remitting money from point A to point B.

In the low income group there was a lower level of understanding. We had only one interviewee who has used mobile money, and even though there were concerns with trust, their concerns were a little bit different in the sense that some of them didn’t think that mobile money was possible in a sense that how can you send money on the phone. So it wasn’t more of lack of trust the product itself necessarily, but more of one, is this possible; two, what about fraud? And so that was a concern. And I don’t know if you remember, but fraud was also here in the higher income group, so fraud is a huge concern.

So then we went to the merchants, because merchants, there are two places in Ghana, well, in the capital of Ghana where there are a lot of merchants.

One is Oxford Street in Osu, where you have a relatively long line of stores. You have a high percentage of the stores there owned by Lebanese businessmen and you do have Lebanese businessmen sometimes being the sole managers as well. And then you have the relatively new Accra Mall. So those are two places that we went to and interviewed different stores and store owners and store workers.

So the interesting thing is that you would think that in a place where mobile financial services could be used for the payment of goods and services, particularly if you wanted to buy a television, right, which would be, you know, let's say \$2,500.00 U.S. dollars, which would be more in the local currency, it would be much easier to use mobile money to pay for that than take the cash with you to the store and then – which means you'd have to go to the bank first and take it out, which means that you'd have to go stand in line first and all that. So it would make sense for these merchants actually to use mobile money, but most of them had actually never heard of mobile money, or they'd heard about it but had no clue what it was.

So as one person said, “All I've heard is mobile money, mobile money; don't know what it is.” Another person said that they thought it would be a good way of doing business, but there was very little belief that it would actually work. And a lot of the businessmen were very jaded because of the fact that other cashless forms hadn't worked before, like the Visa card, the EaseWhich, which is a debit card, and so on. And so even – and I talked to one merchant who said that she had been accepting credit cards but had had some bad experiences and was actually going back to cash. So there was very little, you know, there was very little enthusiasm for using or incorporating mobile financial services as a form of payment. The main question that I heard again and again and again was mobile money sounds like a very good idea in theory, but is it really going to work, from the merchants.

Then we went to the market where a majority of the Ghanaians do their shopping. And basically the market women, the sentiment was that mobile money was not for them. A hair product seller said, “Mobile money is a good idea, but as for me, I prefer cash. So it's a good idea, but I'm not going to use it.” Another woman, who sells saucepans said, “It would be okay for the big-time businesses, those who deal in wholesale and bulk trading, so that instead of carrying more cash in hand, when they transact businesses with mobile money it would be safer for them. But as for mine, mine is a small one; I need the cash urgently, so in order to go and purchase goods for sale I don't think it's good for me.”

So the small-scale retailers thought that it should be the large-scale retailers that use mobile money, but those large-scale retailers had already told us that they were not interested in using it.

We briefly talked to some people who vended mobile financial services; they had very low patron age. We went to centers where it had been advertised that people could use mobile money to pay for the services, utility services, so cable and electricity, but were told that actually they hadn't started it yet, so the advertisements were ahead of what was actually going on. And some people confused mobile money with EaseWhich, which was a cashless form of payments which had basically flunked.

So the irony, one of the things that we saw in the field which was very intriguing was that there was visible marketing. We saw mobile money ads everywhere, but at the same time nobody seemed to know about mobile money. So there's a very interesting paradox of it was there, like the AFLAC duck, but nobody really saw it.

Okay, so since then, you know, a lot of things have happened, the different telco companies have increased marketing to try to make mobile money more visible, but you still see low uptake. One-percent of registered subscribers, at least for one company, were using mobile financial services, just one-percent of all of their registered subscribers. So basically we conclude from our research that in Ghana still cash is king, Ghanaians are slow to accept new forms of money, and merchants see benefits but also problems with the use of money. Market women are largely ambivalent about use, which basically means that if mobile phone companies want to make this successful they have a lot of work to do. They have been doing some of the work, particularly since we did the field work, there has been a lot of marketing going on, but we're not seeing any indication that it has resulted in a significant increase in uptake yet, particularly if you compare it to Kenya, that got 40-percent of the market share in two years, that is not the case in Ghana at all.

Will time change this? It's possible, but it's hard to tell. Here are some newspaper examples of what mobile money has been advertised as being able to do since we did the field work: can be used to pay for public transportation. One thing they did, which I think was smart, was they trained journalists on how to use mobile money so that journalists can write about mobile money, and so on.

So once again, the question that I asked was high mobile phone coverage plus high mobile phone market penetration plus low financial inclusion plus resounding success of mobile financial services in Kenya, does that equal successful adoption in another African market? It kind of depends.

So now I'm going to hand over to Dr. Mensah, who is going to pick up from here.

Male: Hello. I believe you can hear me.

Female: Yes, we can.

Male: All right. Great. So picking up from where Dr. Dzokoto handed off, in the course of our transcribing and analyzing our data a number of themes emerged, which we found to be quite similar to those used in the literature, especially the technology acceptance model. Now one of these variables, latent variables, was the attitude towards mobile money. Now in spite of the high ambivalence that we found, we realized that Ghanaians overall seem to think positively of mobile money. In fact, some said, you know, "I think it is a good thing and I have positive feelings towards mobile money." They had very constructive things to say about it, even though they were not very willing to use it at the time.

Another theme that emerged quite akin to the technology acceptance model was the perceived usefulness. Ghanaians on average through our interviews perceived mobile money as something that's useful, as Dr. Dzokoto rightly articulated. And they believe that adoption of this technology could be advantageous and useful and it will help their businesses. One gentleman said, "I know it will enhance my business. I know it can make me more efficient, but I'm just not ready to use it."

Another theme that emerged that's also akin to the constructs in the literature of technology acceptance was the perceived ease of use. And our interviewees also here reveal that they felt that it would be easy and convenient to use mobile money. But the problem they had was they didn't know how to use it. One gentleman says, "I don't know how to use it, but learning how to use mobile money would be easy for me if I'm taught how to use it." So basically on the perceived usefulness and perceived ease of use scale we find an operant interest in using mobile money services, but there seems to be some degree of uneasiness with this particular technology leading to the low adoption rates, hence the barriers that were listed earlier.

So again, with respect to the barriers, we find that technology anxiety played a role, and particularly due to the lack of knowledge. The poor people, as Dr. Dzokoto articulated, were quite unaware of the product, and the non-poor were between that awareness and the understanding state. They were quite apprehensive towards the technology, as I said earlier, simply because they simply did not understand it. And the whole notion of conducting monetary transactions using the phone was quite new and

quite a stretch for them to fathom. Somebody said, “I’ve not used mobile money technology because it’s unfamiliar to me and I don’t understand it.”

I’m losing my slide here. Okay. Another factor, another construct that we found was risk. Now here we realize that there was a slight difference in how Ghanaians perceived security and fraud in talking about mobile money. Now unlike the United States, where overall consumers are quite _____ and have a heightened sense of network security, we found that our respondents were not as worried about network security per se as they were with fraud and theft, which is often associated with emerging financial services in that part of the world.

Somebody said, “As for the technology, it will work if they say it will work. In other words, if the company says it will work, it will work. It will. But I’m not sure if somebody won’t steal the money through sakawa.” And sakawa is a lookout term that’s used – coined to represent fraud, as Dr. Dzokoto discussed earlier. Another person says that, “What if somebody steals your money? What if somebody steals your phone? If somebody steals your phone you’ve lost your money. If you misplace your phone you’ve also lost your money.” So there’s still some apprehension about storing the money on the phone itself.

And a third is that I’m storing and sending my money through a phone company. It’s very difficult for them to understand, especially the unbanked and poor people. So there still are some trust issues. They doubt if somebody –not necessarily the network; the network they believe would work, but will somebody tamper with the money that I’m sending? And also quite apprehensive about the fact that you have this phone company trying to play the role of a bank, they don’t see how that substitution happens. So that’s quite an issue for our respondents.

Now so do they intend to use it? Well, people felt like, “I might use it” and a good number were quite ambivalent, as has been said earlier. And most of them said, “Well, I’ll use mobile money if I know it is safe. If I can trust the product then I’m going to use it.” And some of them said, “Well, now that you’ve come to talk to us about mobile money we will use it.” In other words, they actually thought that we were actual representatives of the phone companies coming to explain and sell to them mobile money products. So with that understanding they were willing to use it; I guess they needed a face to the product. So they need knowledge to be able to trust the product that is being sold to them, i.e. mobile money.

So we generally find that trust and knowledge are two very important mediating factors in influencing the attitude leading to the decision to use

mobile money. You'll agree with me that knowledge breeds familiarity with a product, which would ultimately temper the anxiety that one would feel in using a technology and ultimately build fast and lead to usage. The ease of use was also important to these individuals. If it's easy and it's simple then they were willing to use the product.

Another factor that has emerged that's also akin to the constructs in the literature was the access to product agent. Here we find that in Ghana most of the authorized mobile money merchants and other agents are located in areas that are not highly populated by those who would like to use the product, for example, market women. So market women, in talking to them, asked the question, "Where can I get the money?" And the time that I will spend to go and get the money, to them, they feel like it imposes a _____ cost, leaving their wares. One said, "I can't leave my produce to go and get the money." If they are located here, in other words, if they were located in the market I can easily go there for my money if someone pays me by mobile money." So the take home here is that it's all about location, location, location. Yes, the adverts are doing something to create some degree of awareness really to enhance usage location _____ as it's often espoused in marketing.

And then also a problem is you have very few authorized vendors, very few of them; you don't have as many to be available and easily accessible to individuals who would like to conduct this business. So in effect you have customers who are unaware of these payout locations, or if they are, they are so far they can't reach them easily. And of course you have merchants, authorized merchants and agents of mobile money who can't also find customers. So this presents a problem that certainly will impede the adoption or uptake of mobile money.

Another factor is that there is still competition being held up against mobile money with the traditional forms that people are used to. As Dr. Dzokoto said earlier, Ghanaians don't change easily. And the traditional means of sending money and conducting financial transactions are still entrenched in the minds of the people. The former banking sector and the existing informal means of sending money is a silent – are our silent competitors to mobile money, I should say. For the banked they would say to us that I can send money through my bank or money gram or Western Union to my parents, so why should I worry to use mobile money. And for the unbanked, they also argue that, "Well, I can still send money through family, friends, or a transport buyer, a bus driver, that's still okay. Why do I have to register and pay money to send money to my mother or daughter?" That's for the poor people and the unbanked.

And market women also will tell us, "Well, I can still use the suit to save my money. I don't need to worry about saving my money on my phone."

Now it's important to understand that in Ghana, in most places in Africa if you want to promote a product, promoting through women is a key. It's said in Ghana and many places in Africa that "If you educate a man you educate a person, but if you educate a woman you educate a nation." So probably the phone companies need to think about targeting women and market women for their product, and once that takes they will be able to see higher uptakes of their products.

Now so we just thought we would just run a simple pilot test with the constructs that we've had, since it was quite close to the technology acceptance model. We took a few of the constructs and we designed a pilot survey to collect some data to get some quantitative understanding of the perceptions of Ghanaians on this particular product. And the gist, model looks something like this, with respect to the perceived ease of use we found that, in running model we found that it had a positive and significant impact on the attitude towards mobile money. And then also we found that the perceived usefulness also had a positive and significant interaction with the attitude towards money, which is quite similar to the result that most literature had found. We also found that attitude towards mobile money then translated and had a positive impact – positive and significant impact on the intent to use mobile money.

Now two things that surprised us, and probably now I don't – I'm not as surprised as I was earlier, is that the perceived mobile money security, although it had a positive interaction with the attitude towards mobile money, it was not significant, it didn't have a significant interaction with the attitude towards money. Neither was the perceived mobile money security significant with interaction with intent to use mobile money. And I believe that it was because of the way the survey was structured, structured in the sense _____ for security, and as we said earlier, Ghanaians think more of fraud than security, I mean network security. So when you think about security, they know when the companies says that the money will go through, it will go through, it's secured. But will somebody else do something? Will somebody play me and extort money from me?

So these findings then suggest that the perceived ease-of-use and perceived usefulness of mobile money service in Ghana are the primary determining factors of the customer's attitude towards mobile money and also the intent of use. On the other hand, the security issue, which is often envisioned as a primary factor in the United States, especially with network services here, that does not play a pivotal role in Ghanaian customer's perception of mobile money. However, fraud and theft might. Now unfortunately we didn't construct our survey to capture that, so from this pilot test probably that's what we need to do, to tweak this model to see if we can cut to that and see the consent expressed there.

So overall the takeaway from this is that we believe that the story of Ghana has only just begun. There's still room for a more fairer study to be conducted. The companies need to build more awareness, there's the need to create understanding and knowledge to educate people more, to improve the uptake. We believe that the companies need to assess the channels they are using to communicate their products. Advertising is good, but it might only create awareness in such a population where you have a good number who cannot read. And it's also inadequate to promote just the brand or the name of a product; the customer's understanding of how the product works, how it operates will help reinforce its usefulness and lead to adoption.

Knowledge that leads to usage will require intense education. For a place like Ghana we believe that emphasis should be placed on one-to-one, person-to-person salesmanship. So do more personal selling and probably a reasonable amount of advertising. At the moment there is less personal selling to the extent that they thought we were representatives from the company, tells you that they really needed a face and needed a personal touch. The companies could use their field agencies. They need to also educate their tabletop agents so that if they come in contact with customers they could explain the product to them, and retailers also need to be educated as well. And they need to hire well-trained, well-educated agents. You have a number of college graduates and high school graduates who have graduated, and these individuals could be hired to reach the people with the products. At the moment sometimes you'll find somebody who hasn't been to school selling air time. Well, that's okay. But if you can have somebody who understands mobile money to explain to people, that will facilitate its adoption. We were quite surprised that some of the agents didn't even understand the product itself. They were not well-versed in the products, knew nothing or little about mobile money. The companies should also target family and friends. You know, in Ghana word-of-mouth does a great deal in selling a product. So that's very important.

So in a gist, firms need to educate to bring about more knowledge to enhance the uptake of the product. They could also concomitantly educate as they activate customers. Sometimes these things are not done in tandem, and if they synchronize those three events it will help to sell the product, for consumers to be more aware of the product, and also have more knowledge and reduce the apprehension from the use of it, and then try to find a way to combat the traditional competitors, which I talked briefly, being the _____ banks, the formal sector, and the existing informal sector that, you know, innately competes with mobile money services.

Then probably more incentives should be given to promote mobile money. I know a lot of incentives are given in Ghana to promote airtime, however, very little incentives are given to promote mobile money. So these are some of the barriers that we encountered.

And I would like to say thank you so much for taking time to listen to us, and I will appreciate all your thoughts and questions. Thank you.