BitPlus

WHITEPAPER

Introducing BitPlus

Building a disruptive solution to integrate traditional remittance networks with emerging mobile money systems in the Horn of Africa

Contents

Abstract

Mobile banking technology has transformed the way people store, send and receive funds. In developing countries around the world, the mobile payment industry is flourishing, with solutions providing users autonomy in managing their money. Running as a SIM app, these electronic wallet services function on both smart and basic phones and do not require internet access to send and receive, communicating directly with the telecom on their own separate channel. These systems are widespread and used in major cities, serving as a vital connection for those in rural and remote regions.

For nearly three decades, Somalia has been under civil unrest due to war and famine. The Somali diaspora plays a crucial role in improving life in Somalia, sending remittances that value an estimated $1.5B. An expensive and complicated process, senders have to wait in long lines and recipients are often required to travel long distances through dangerous regions to pick up the funds. By utilizing blockchain technology, BitPlus makes the process of sending and receiving remittances in Somalia convenient, fast and cheap, eliminating the need for third party involvement and allowing the Somali diaspora to help their family members get access to food and medical support.

With its seamless and user friendly design, senders are able to obtain digital currency and proceed to the BitPlus website. To transfer money, the sender must provide the recipient's name, the phone number that will receive the EVC Plus funds and the amount being sent. Once the digital currency has been sent, BitPlus is able to instantly remit the funds to the recipient into the EVC Plus app. This decentralized means of sending money will not only significantly cut the cost of sending and receiving money, but it will also allow senders to help family members in Somalia get the resources they need to survive and thrive. BitPlus will not only be one of the fastest and most successful ICO's, it will likely also be the first to save countless of innocent lives. Paper money is the past, blockchain is the future, BitPlus is the intermediate for Somalia.

Introduction

BitPlus is the brainchild of Abdulkadir Mohamed Ibrahim, a graduate of Simad University in Mogadishu. As an early adopter of technology and internet, Abdulkadir has been one of the main advocates of blockchain technology in Somalia. From very early on, Abdulkadir understood the vital role Internet could play in changing the world. In 2010, Abdulkadir purchased his first Bitcoin in 2010 and watched as the ecosystem developed. As a finance major, Abdulkadir understood the problems involving Hawalas and other money transmitters operating in many western countries and how blockchain tech and Bitcoin could help connect Somalis to the rest of the world.

At the time, blockchain technology was new and Somali businesses were skeptical. Despite this, Abdulkadir successfully organized local events in an attempt to network and spread the adoption of this technology in the horn of Africa . He started working at a local radio station and began making plans to move to Kenya. In 2016, at a bitcoin meetup in Kenya, he met Abdi, a former executive at Bank of America and current director of Ocean Energy, an oil and gas company. The two formed an alliance and started hashing out their ideas.

Abdulkadir and Abdi reached out to developers and began mapping out their project. Their goal? Creating a user-friendly and safe way for the Somali diaspora to provide financial resources for their family members in Somalia. By eliminating the need for intermediaries, this new solution will save the users an incredible amount of time, significantly cut down transaction fees and prevent political climates from influencing how and when individuals received aid.

For decades, millions of people in Somalia have been affected by war and natural disasters, consistently leaving them at the mercy of international groups to provide aid and security. In 1980, national civil war broke out, killing 40,000 Somalis and forcing 400,000 refugees to flee to neighboring Ethiopia. In the early 1990s, over 220,000 Somalis perished due to a lack of basic food supplies. "Operation Restore Hope" was established by the UN as an attempt to prevent food aid from being intercepted by rebel groups. In 2001, increased violence forced the UN to pull international staff and aid.

Introduction

Mobile Money

Mobile money has transformed the way people store, send and receive funds. In developing countries around the world, the mobile payment industry is flourishing, with solutions providing users autonomy in managing their money. Running as a SIM app, these electronic wallet services function on both smart and basic phones and do not require internet access to send and receive, communicating directly with the telecom on their own separate channel. These systems are widespread and used in major cities, serving as a vital connection for those in rural and remote regions.

Research carried throughout 2016, conducted by Altai Consulting through the World Bank's Somalia ICT Sector Support Project, finds that it is the current mobile money ecosystem that achieves all this, and more. BitPlus makes the process of sending and receiving remittances in Somalia convenient, fast and cheap by utilizing the blockchain. While eliminating the need for third-party involvement and allowing the Somali diaspora to help their family members get access to food and medical support.

BitPlus will have a seamless and user-friendly design, senders will be able to obtain digital currency and proceed to the BitPlus website.

To transfer money, the sender must provide the recipient's name, the phone number that will receive the EVC Plus funds and the amount being sent. Once the digital currency has been sent, BitPlus will instantly remit the funds to the recipient into the EVC Plus app. This decentralized means of sending money will not only significantly cut the cost of sending and receiving money, but it will also allow senders to help family members in Somalia get the resources they need to survive and thrive.

- Prevalence of mobile money usage (73%) compared to the 15% of the population who have accounts with formal banks.
- 88% of Somalis above the age of 16 own at least 1 SIM card, while 83% of SIM card owners use mobile money.
- With nearly 2/3rds of its users choosing to keep funds in their mobile accounts rather than cashing them out.
- Somalis think that mobile money transfers are simpler to use, simpler to register, faster and easier to physically access, but that their money is less safe and the service is the less value for money than bank or hawala/MTO transfers.

Attempts to provide aid to many rural areas continue to be unsuccessful, with thousands of people dying before international relief programs are implemented. Required to travel dangerous routes to get to those spaces, many aid workers are killed or robbed. These blockades not only prevent foreign aid from reaching remote areas, but it also prevents commerce. Without access to money for food, basic hygiene products, clean water, hospitals and camps, increasing numbers of people fall victim to life-threatening disease

- Nearly 260,000 die of hunger caused by drought and conflict from 2010-2012
- Drought and War contribute to famine across Somalia; about 250,000 famine-related deaths reported in 1992
- Traditional methods of providing aid has been either distributing sacks of flour or rice off the back of trucks, or handing out packages of oil, pasta, lentils and other foods to families residing in camps.
- As of February 2017 a drought ravages Somalia that has left more than 6 million people, or half the country's population, facing food shortages with several water supplies becoming undrinkable due to contamination

Introduction

Cash in Bags

Due to the intensified scrutiny from governments and fear of potential libel lawsuits, several US and other international MTO's are canceling Somalia associated money transfers accounts. Yet, changing circumstances for remittances sender, which does not change the potential receivers reality of shallow grave of starvation without it. As a result, circumstances has become more dire, so have the methods proportionally. Subsequently, if you cannot move the money from A to B wire the banking system, the only option left is to move the money physically. According to US laws, you can however take any amount of money out of the country, but having to declare any amount over $10,000. As a result thereof, cases from early 2015 showed, that individuals from the Seattle area starting to declare amount of $790,000. This later escalating to declarations of suitcases containing amount of $2,000,000, with one Seattle Hawala transferring a total of $20,000,000 throughout the year. As one might imagine, this is not by any means a time-cost efficient method, nor does it allow for data collection and potential tracing of potentially bad actors.

Introduction

The Somali Diaspora

As a way of supporting family members in developing and war-torn countries, migrant workers began transferring money home. With the number of funds exponentially growing over one trillion US dollars over the last decade. Remittances represent a significant percentage of country's GDPs. Various wire transfer companies facilitate these processes, allowing migrant workers to assist relatives and maintain a connection with their home countries.

These expatriates, consisting of migrant workers and refugees, have established communities around the world. People who managed to escape civil unrest and economic instability in Somalia have created many and substantial Somali communities around the world, often referred to as the Somali diaspora. Eager to take matters into their own hands and help ease the daily struggles of their loved ones left behind, the diaspora began sending remittances. These remittances amounted to an estimated 1.4 billion USD in 2015 and account for an impressive 23% of Somalia's GDP. Somalis living in Germany, United Kingdom, and the USA alone remit over 480 million USD annually.

With more money in remittances flowing in than humanitarian assistance, these transfers play a vital role in disaster relief. Of the 12.3 million people living in Somalia, a staggering 41% of households surveyed received remittances. Between 45-65% of remittances are used for food, while the remaining funds are almost exclusively used for basic necessities such as clothing, medical care, education, and rent.

Introduction

Blocking Remittances

Using MTOs around the world, the Somali diaspora transfers money directly to family back home. These services often require both the sender and the recipient to travel to businesses that facilitate the transfers and interact with agents. This process can be very difficult for those in rural and areas to participate in, as they must travel long distances and dangerous routes to the nearest city.This lengthy process can be expensive for both parties, with transaction fees as high as 10% in countries like Australia.

Disrupting remittances will not only cripple Somalia's economy, but it would also result in a significant loss of life. Despite efforts to monitor and regulate money transfers, a lack of transparency has led to violent groups acquiring their resources directly from aid programs. According to a UNICEF report on the efficiency of aid in the country, distributing aid has become increasingly difficult, as the country has experienced an increase in loss of funds and material by Transitional Federal Government, local authorities, militias, powerful individuals or groups such as majority clans and, in some cases agency staff themselves. Attempts by international government programs to provide assistance have been unsuccessful, with only 35% of the aid actually reached it's intended beneficiaries.

Decentralizing money transferring process in Somalia is crucial to improving the human development for the Somali people. Over regulation of the flow of funds into war-torn countries like Somalia is consistently influenced by politics. Regulating or disrupting remittance transactions will prevent people from being able to pay for food, basic hygiene products, health care, school, etc.

The BitPlus Solution

BitPlus empowers the Somali diaspora to provide direct aid to their vulnerable family members, helping them pay for basic needs like education, food, and medicine. Due to the decentralized nature of the platform, BitPlus users will become important benefactors to funding important philanthropic endeavors, related but not limited to infrastructure, direct aid, social entrepreneurship, educational programs, job training and other NGO or non-profit initiatives.

The implementation that exists as of today is integrated with Bitcoin, and allows to trigger an EVC Plus transfer by sending the money to a special temporary address that is generated for those purposes. The actual transfer to EVC as well as the management of the transaction-status and redeeming of the funds is implemented as a central service. The current implementation does not utilise any advantages of decentralization. However, as the Bitcoin network suffers from some serious scaling issues and the transaction costs have increased substantially, a decision was made to implement the solution as an Ethereum contract.

Such implementation would have a number of advantages over the existing Bitcoin network

1. Lower transaction fees and lower waiting times.
2. The contracts that would implement the functionality would be open to public scrutiny.
3. No interference with the data will be possible.

When the goals of the campaign are met, the plan is to have implementation on top of Ethereum in three months. The initial implementation would use Ethereum tokens to represent EVC Plus assets being traded and transferred, which would be created by Bitplus. The implementation would allow to do a one-click transfer from ETH to EVC Plus, and will be extendable to allow other mobile payment solutions to be integrated later.

Since the Bitplus implementation would use the tokens representing EVC Plus assets, the redeem functionality would be implemented as an Ethereum contract. BitPlus in this case will act as an oracle-service, providing the exact confirmation that the funds has reached the mobile phone in case of a redeem operation, as well as making sure that it has enough EVC Plus balance to cover the total EVC Plus assets in Ethereum.

The BitPlus Solution

Why EVC Plus?

- Works with basic feature phones & Smart Phones
- Accepted by all major merchants
- Dollar based (Somali shilling has little no value at all)
- Transfer Money to and from bank account via EVC sim app
- Wallet balance is stored on sim. EVC can be used and balance spent as soon as inserted.
- Simple text based app. No loading or wait times
- Easily pay all your bills with EVC Plus
- Easily buy airtime recharge from your mobile with EVC Plus

Key benefits of EVC Plus service:

- Manage welfare/humanitarian activities
- Access your bank account from your mobile
- Manage business activities
- Manage personal tasks
- Make bulk payment

The BitPlus Solution

User Experience

BitPlus is an easy to use system that doesn't require the user to understand BTC, ETH or worry about price volatility. BitPlus has also appointed brand ambassadors and trainers to assist users. Digital Currency is just starting to catch on with the tech savvy and younger generation. Bitplus trainers will be able to assist those who are not experienced with BTC/ETH to use the service.

The BitPlus user will be able to access our platform with BTC or ETH, and will not be holding digital assets long enough for volatility to become a risk. The sender is able to use the system right away, with the process taking less than 30 seconds.
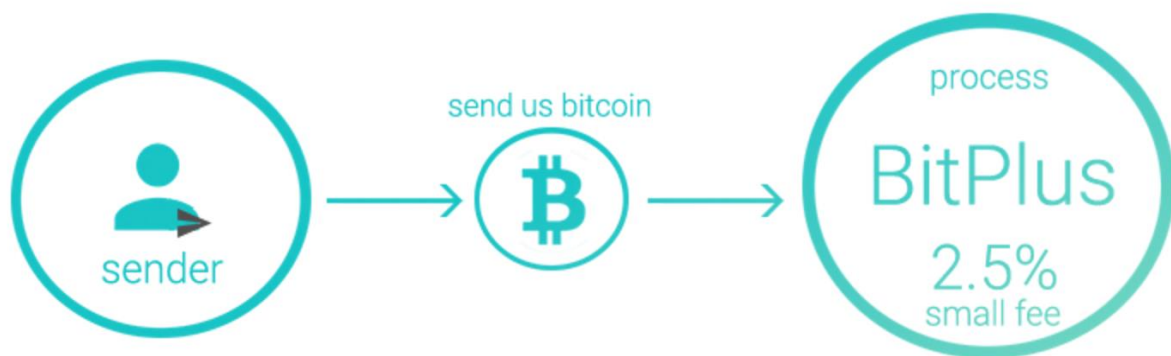
1. The remittance sender creates an account, selects the phone number he wants to send the money to and possibly writes an accompanying message. Finishing the transaction by sending the specified amount of crypto to our wallet.
2. BitPlus locks the exchange rate, keeping the fee in crypto, and exchanges the remaining remittance amount. All of which is programmed and automated.
3. An automated android platform will be used on the ground in Somalia, automatically sending the corresponding remittance amount and message to the receiver within seconds.

The BitPlus Solution

The BitPlus Network Token (BPNT)

BPNT is a ERC20 (Ethereum) token & a core component of BitPlus. The token enables holders to control the overall direction of the project. BPNT tokens are created during the crowdfunding period and following the first official release of BitPlus, will play a major role in various functions of the BitPlus network.

Features of BPNT:

- Ability to control backend clearing processes
- Limited supply of tokens during the crowdfunding period, amounting to max. 25,000,000.
- BPNT is a token on the Ethereum platform. Its design follows common standards adopted in token crowdfunding, making it easy for users of Ethereum Wallet.

Presale CTA:

- Minimum ether: 2,500
- Maximum ether: 25,000
- Percentage reserved to crowdfunding participants: 80%
- Percentage reserved to Bitplus Team: 10%
- Percentage reserved to Early Token Buyers: 10%
- BPNT creation ration is 1,000 BPNT to 1 ETH.

In case the minimal funding goal is not reached, the contract allows buyers to issue a refund

ICO Details/HowTo

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Appendix

Table 1

Distribution and use of remittances by surveyed Somali recipients

Table 1.1

Data from survey conducted by the Food Security and Nutrition Analysis Unit (FSNAU) for Somalia, overseen by the Food and Agriculture Organization of the United Nations (FAO).[1]

Appendix

Table 1.2

Percentage of Somalis in Surveyed Region Receiving Remittances and Relatives Abroad.[2]
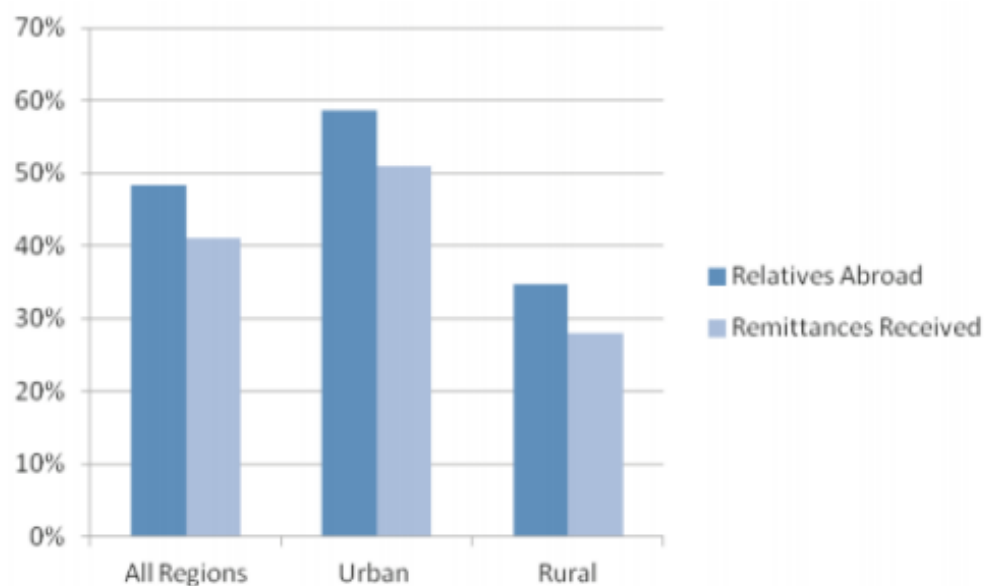
Table 1.3

Uses of Remittance Support.[3]
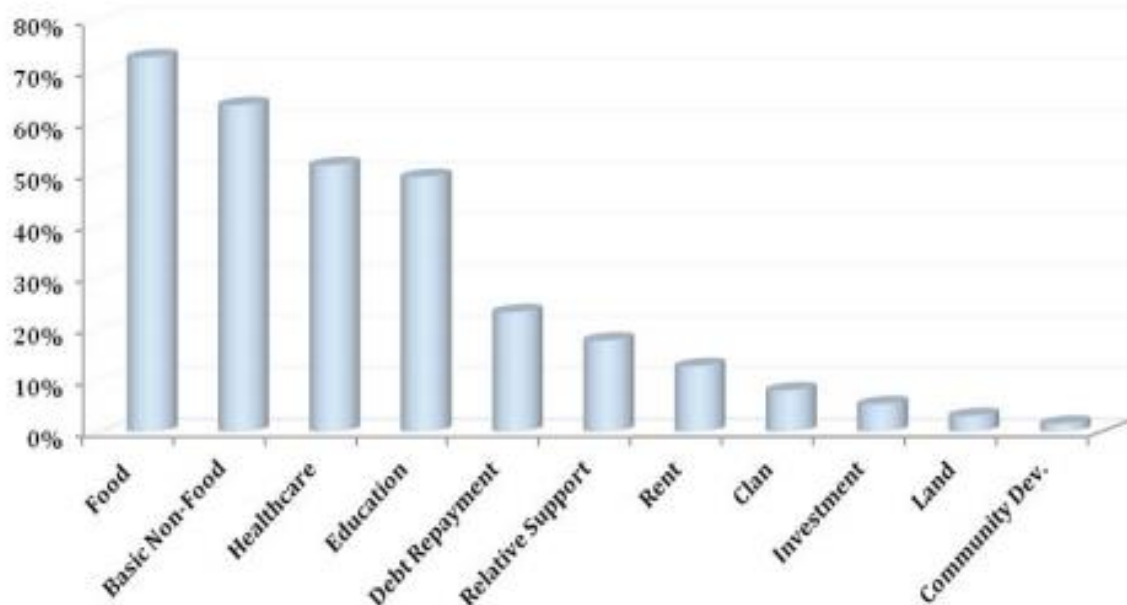
Appendix

Table 1.4

Expected Impact of Suspended Remittances in Urban v. Rural Areas.[4]
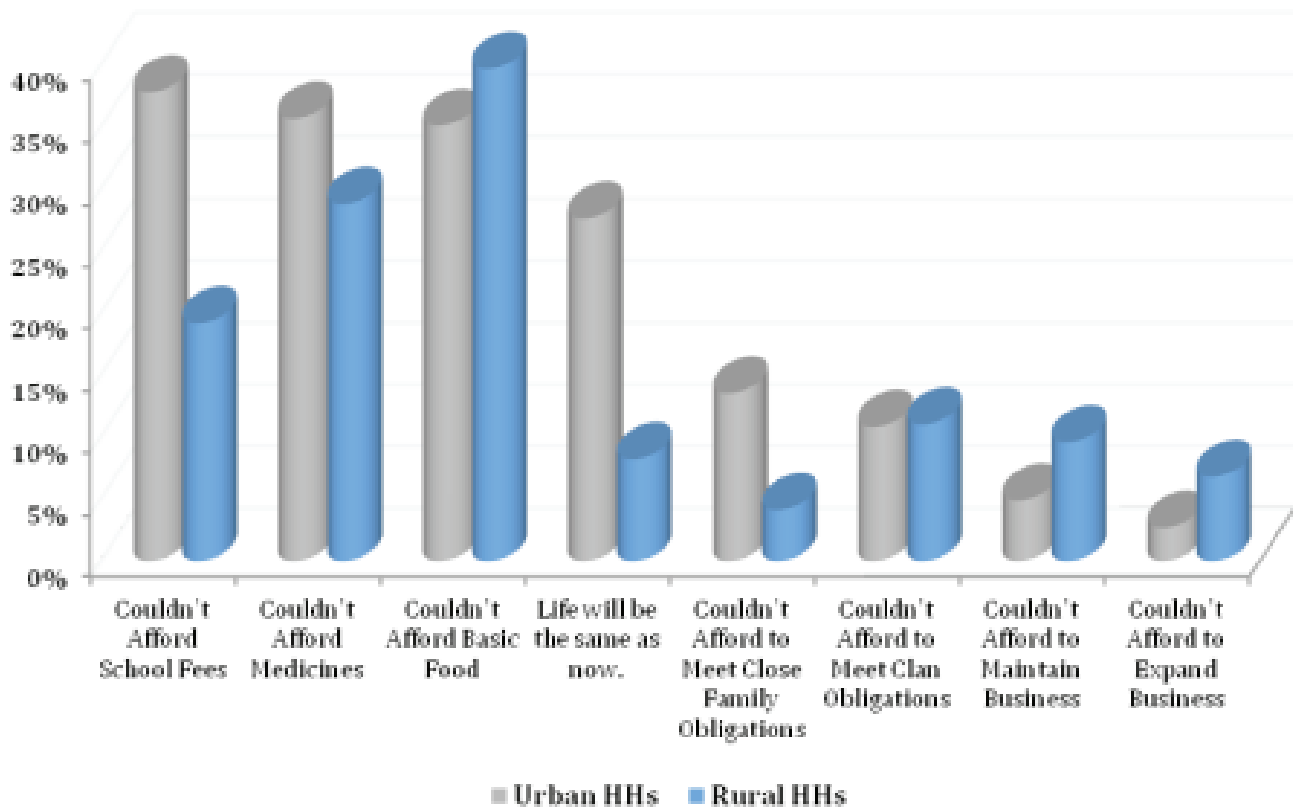
Appendix

Table 2

Remittances from randomly selected countries and their respective fees. Data retrieved from Remittance Prices Worldwide, who are funded by the World Bank. The numbers shown are from the 1st quarter of 2017. The table also reflect MTOs used to send money from the respective countries.

Table 2.1

Sending money from Australia to Somalia.[5]

200.00 AUD	500.00 AUD									
Firm	**Payment instrument**	**Access point**	**Sending network coverage**	**Transfer speed**	**Receiving method**	**Disbursing network coverage**	**Fee**	**Exchange rate margin (%)**	**Total cost (%)**	**Total cost (AUD)**
WorldRemit		Internet	High			Medium	10.00	2.12	7.12	14.24
Dahabshiil		Agent	Low			High	22.00	2.12	13.12	26.24
				Total Average			16.00	2.12	10.12	20.24

Total Average First Quarter	**Total Average Fourth Quarter 2016**
10.12	9.11

Appendix

Table 2.2

Sending money from Netherlands to Somalia.[6]

140.00 EUR	345.00 EUR									
Firm	**Payment instrument**	**Access point**	**Sending network coverage**	**Transfer speed**	**Receiving method**	**Disbursing network coverage**	**Fee**	**Exchange rate margin (%)**	**Total cost (%)**	**Total cost (EUR)**
WorldRemit		Internet	High			Medium	7.00	1.73	6.73	9.42
Dahabshiil		Agent	High			High	5.00	4.19	7.76	10.86
						Total Average	6.00	2.96	7.25	10.14

Total Average First Quarter	Total Average Fourth Quarter 2016
7.25	7.05

Table 2.3

Sending money from Sweden to Somalia.[6]

1,700.00 SEK	4,300.00 SEK									
Firm	**Payment instrument**	**Access point**	**Sending network coverage**	**Transfer speed**	**Receiving method**	**Disbursing network coverage**	**Fee**	**Exchange rate margin (%)**	**Total cost (%)**	**Total cost (SEK)**
WorldRemit		Internet	High			Medium	85.00	4.15	9.15	155.55
Amal Express		Agent	Medium			High	68.00	6.03	10.03	170.51
Iftin Express		Agent	Low			Medium	68.00	6.03	10.03	170.51
Juba Express		Agent	Low			Medium	68.00	7.30	11.30	192.10
Tawakal Express		Agent	High			High	85.00	6.76	11.76	199.92
Amaana Express		Agent	Medium			Medium	85.00	6.76	11.76	199.92
Dahabshiil		Agent	High			High	68.00	9.65	13.65	232.05
						Total Average	75.29	6.67	11.10	188.65

Total Average First Quarter	Total Average Fourth Quarter 2016
11.10	9.37

Appendix

Table 2.4

Sending money from United Kingdom to Somalia.[8]

	120.00 GBP	300.00 GBP								
Firm	**Payment instrument**	**Access point**	**Sending network coverage**	**Transfer speed**	**Receiving method**	**Disbursing network coverage**	**Fee**	**Exchange rate margin (%)**	**Total cost (%)**	**Total cost (GBP)**
Kaah Express		Agent	High			High	7.20	0.07	6.07	7.28
WorldRemit		Internet	High			Medium	6.00	1.67	6.67	8.00
Iftin Express		Agent	High			High	7.20	1.99	7.99	9.59
Dahabshiil		Agent	High			High	7.20	2.07	8.07	9.68
Mustaqbal Express		Agent	High			High	7.20	2.07	8.07	9.68
Tawakal Express		Agent	Medium			High	7.20	2.07	8.07	9.68
Amal Express		Agent	High			High	7.20	2.07	8.07	9.68
Total Average							7.03	1.72	7.57	9.08

Total Average First Quarter	**Total Average Fourth Quarter 2016**
7.57	**7.96**

Table 2.5

Sending money from United States to Somalia.[9]

	200.00 USD	500.00 USD								
Firm	**Payment instrument**	**Access point**	**Sending network coverage**	**Transfer speed**	**Receiving method**	**Disbursing network coverage**	**Fee**	**Exchange rate margin (%)**	**Total cost (%)**	**Total cost (USD)**
Tawakal Express		Agent	High			High	10.00	0.00	5.00	10.00
Al-Mustaqbal Express		Agent	Low			High	12.00	0.00	6.00	12.00
Amal Express		Agent	High			High	12.00	0.00	6.00	12.00
Dahabshil		Agent	High			High	12.00	0.00	6.00	12.00
Iftin Express		Agent	Medium			Medium	12.00	0.00	6.00	12.00
Kaah Express		Agent	High			High	12.00	0.00	6.00	12.00
Total Average							11.67	0.00	5.83	11.67

Total Average First Quarter	**Total Average Fourth Quarter 2016**
5.83	**5.83**

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