

E-Cash Pilot: Digital Solutions for Rural Communities

NRC in Afghanistan



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Cover photo: Maisam Shafiey/NRC

Mohammad Omar, 32, is a project participant of NRC's digital cash initiative in Maiwand district of Kandahar province. Mohammad Omar enthusiastically shows the e-card (Hesab Pay card) that enables him to purchase the necessary house materials from the retailers located in his district.

TABLE OF CONTENTS

1 E-CASH PILOT EXPLAINER.....	4
1.1 Introduction	4
1.2 What we have done.....	4
1.3 Why we have done it	5
1.3 How it works	6
1.4 Outcomes.....	7
2 LESSONS LEARNED AND RECOMMENDATIONS.....	9
2.1 Lessons learned.....	9
2.2 Recommendations:	9
3 QUESTIONS AND ANSWERS	11
ANNEX 1 - OUTCOMES FROM POST PILOT EVALUATION	13
ANNEX 2 - DASHBOARD.....	15

1 E-Cash pilot explainer

1.1 Introduction

For decades rural communities across Afghanistan have suffered from a lack of access to affordable and safe financial services. This has been caused by many years of conflict and low levels of investment in rural infrastructure. Formal banking services are mostly concentrated in urban hubs and consequently, most rural households from remote districts have no formal financial instruments for saving cash and tend to keep their physical bank notes at home, at their own personal risk.

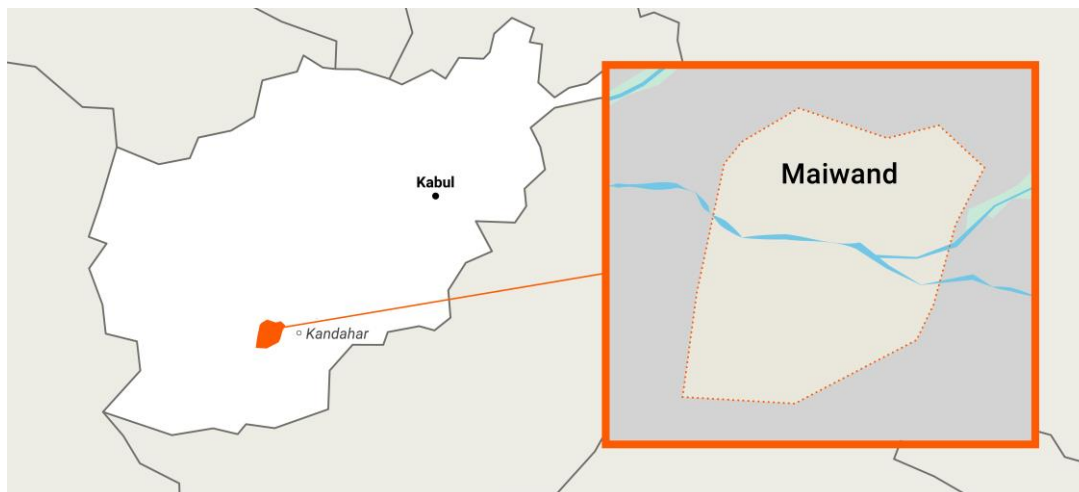
The collapse of the banking system following the Taliban takeover of Afghanistan has also caused long lasting mistrust of the domestic banking system and left Afghans without enough access to physical cash. Many rural consumers, businesspeople and humanitarian actors have been forced to rely almost exclusively on hawala systems for transferring cash.

A pilot programme conducted by NRC demonstrates that digital cash platforms have the potential to increase access to affordable financial services for these rural communities, which in turn can transform and enable market growth in these areas and facilitate more effective humanitarian cash programming. Despite the notable success of the pilot, substantial work is required to facilitate a scale up of e-cash ecosystems. Without a critical mass of onboarded users and operational agent networks throughout the value chain, these digital platforms will not be effective and humanitarian actors may run the risk of distributing cash to e-wallets that are not accepted by retailers or wholesalers, rendering it useless.

1.2 What we have done

NRC has partnered with Hesab Pay, an Electronic Financial Service Provider (E-FSP), to pilot an innovative digital cash solution to improve the financial inclusion of rural populations and market actors. Instead of giving physical cash to people affected by displacement via cash transfer agents (Hawala), we aimed to strengthen the supply chain of the digital cash and improve access to e-cash by promoting the engagement of local market actors and establishing a digital cash ecosystem. NRC provided project participants digital cash directly into their own e-wallet, that they could then exchange for goods and services with pre-contracted local retailers, who purchase the goods from wholesalers. Under this innovative model, NRC engaged the E-FSP and conducted training sessions for their customers (project participants) to improve digital literacy of everyone involved in the value chain including the rural consumer, the rural retailer, and the urban wholesaler.

For a period of three months, NRC provided financial assistance totalling USD 170 per month to 110 vulnerable households who have been affected by displacement, targeting marginalized groups including women, people with disabilities, child-headed and elderly-headed households. The pilot was conducted in a remote area in Maiwand district, 107 km from Kandahar city, roughly two to three hours to drive. Thirteen vendors and wholesalers were engaged to serve as Hesab Pay agents.



The above map shows the location of the pilot project.

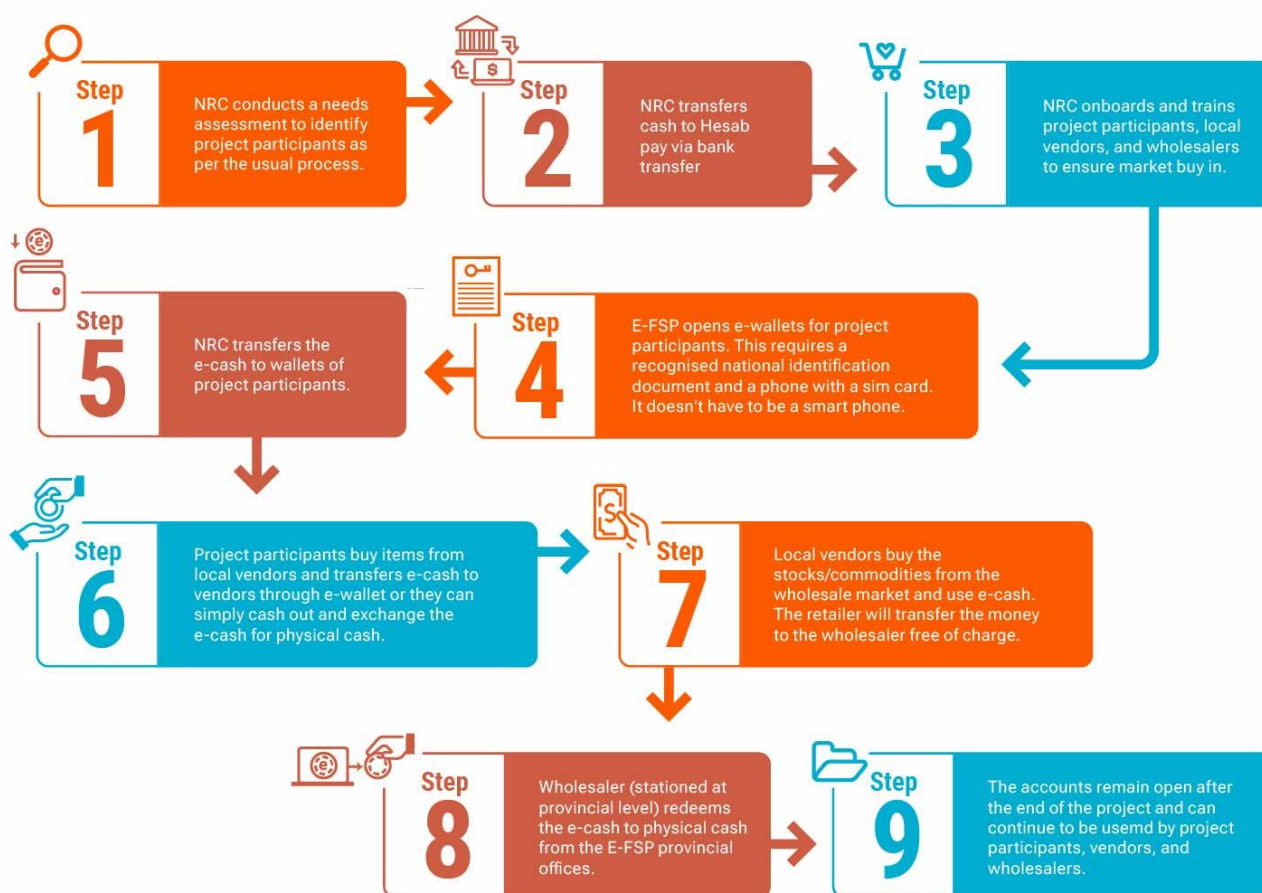
1.3 Why we have done it

To improve the effectiveness of cash distributions: NRC's programming in Afghanistan has often been cash-based, especially in emergencies. However, for protracted crises, purely cash-based responses are not fit for purpose. Giving people money without engaging and providing support to the local market might mean that the market can't provide what they need. Market based programming supports communities and markets to recover and move towards self-reliance. Operationally, it is also safer and cheaper for humanitarian organisations to deliver e-cash, than it is to distribute physical cash.

To improve access to digital financial services: Afghanistan has suffered a severe economic shock following the takeover of the Taliban and it remains fragile and vulnerable to further shocks. The domestic banking sector is still in a recovery phase and many businesses as well as the general population lack trust in the formal banking sector. Most have tended to use informal Hawala vendors to transfer money, which is costly, operationally heavy and carries other risks. Digital e-cash solutions provide increased access to financial products and diversification of financial products, and can be introduced with embedded incentives for project participants, retailers, and wholesalers. It also facilitates a quick connection between retailers and wholesalers, reduces transportation costs and risks, and subsequently strengthens business relationships between them.

To connect rural and urban markets: Over the last few decades, the rural market has faced disconnect with the urban and provincial markets. This is partly due to previous insecurity in remote areas and poor road infrastructure, but also due to the concentration of formal banking services in urban areas, mainly at provincial level. Access to physical cash and storage of cash has always been a challenge and a risk for rural populations, traders and particularly for women. The fragility of the current bank notes and poor availability of physical cash due to the liquidity crisis have also created difficulties.

1.3 How it works



1.4 Outcomes

Through this pilot, NRC was able to demonstrate the market potential and operational feasibility of rural expansion of e-cash services. This pilot proves that expanding the financial inclusion of rural vulnerable groups through a private sector led intervention is both achievable and impactful.

See Annex 1 for a detailed breakdown of the post pilot evaluation and Annex 2 for the dashboard showing the breakdown of users.

Benefits for NGOs:

- The contracting NGO does not have to make logistical arrangements for onsite provision of assistance (in-kind or even physical cash), such as security clearance processes for site selection and distribution or liaison with government. Although initial in person assessments and post monitoring visits are still necessary.
- It ensures safe and inclusive programming as it empowers individuals as consumers, protects their identity and reduces exploitation risk from various power holders.
- It provides online dashboards to allow real time monitoring of disbursements, trend analysis of spending and purchasing patterns at customer as well as retailer level. An example of the dashboard can be seen in **Annex 2**.
- Private sector led interventions strengthen local markets for cash preparedness, which is particularly relevant in areas of reoccurring natural disasters.

Benefits for project participants:

- Project participants are introduced to digital accounts and e-cash systems, and the associated training improves their digital literacy skills.
- Encashment processes are not time bound, so project participants can use the e-wallets for saving.
- Provides financial incentives and offers on the use of e-transactions to buy mobile credits or pay electricity bills.
- The e-wallet is safe and secure, and the cash is stored in the permanent e-cash account.
- When NGOs have engaged in appropriate value chain onboarding, e-cash is acceptable in the local market.
- Improved functioning of local markets means increasing goods and services for our target participants.

Benefits for retailers and wholesalers:

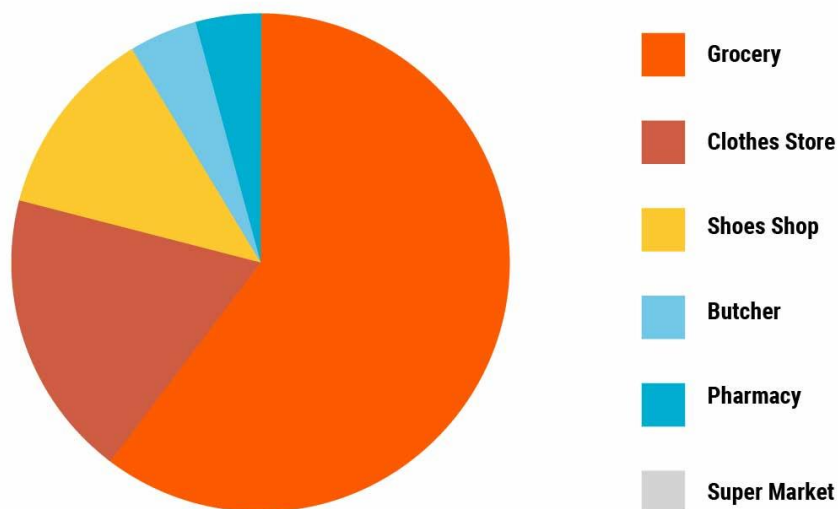
- It is easier for retailers and wholesalers to transact cash, especially the rural retailers who experience high travel hours to procure the stocks, now it's just one call away.
- Retailers experience increased confidence and remote access to national market actors to do business.

- Retailers and wholesalers experience improved reputation and visibility in the market and can scale-up business opportunities and risk-free movement.
- Additional incentives on e-transactions have also increased the interest and use of e-cash.
- Diversifies income for businesses who act as agents to encourage local financial transactions.

Benefits for E-Financial Service Providers:

- Partnering with NGOs can support new customer acquisition.
- NGOs can provide support in educating and activating customers to facilitate adoption of e-cash systems.
- Partnering with NGOs helps E-FSPs to reach last mile customers in remote areas.

Breakdown of merchant type used in outgoing transactions



2 Lessons learned and recommendations

2.1 Lessons learned

This pilot was successful in establishing a proof of concept: that expanding financial inclusion of rural vulnerable groups through a private sector led intervention is both achievable and impactful. However, a clear lesson learned from this process is that this success pivoted on substantial investment in training and onboarding of users throughout the value chain, from consumers to retailers to wholesalers. Incentives were provided to retailers and wholesalers to engage in the digital platforms and timely market analysis was conducted by experienced staff throughout the process to ensure the success of the pilot. Without a critical mass of onboarded users throughout the value chain, the digital platforms will not be effective and humanitarian actors may run the risk of distributing cash to e-wallets that are not accepted by retailers, rendering the cash useless and undermining confidence in digital platforms.

Another key learning result from this pilot was the potential e-cash has to help target and support to women. Digital transfers ensure money goes directly into e-wallets of women and can only be spent when given a unique access code. Women who are unable to travel alone or access physical learning spaces could also be supported via off-line payment mechanisms, or through online training, or via uploaded financial literacy training and resources. Digital markets on mobile platforms could also be established, providing market access to businesswomen who are unable to meet customers in person.

2.2 Recommendations:

For donors:

- Prioritise e-cash programming in Afghanistan and support NGOs and the private sector to establish a critical mass of onboarded e-cash users.
- Prioritise programming approaches in Afghanistan that help to improve awareness and trust in digital solutions.
- Encourage NGO implementing partners to use e-cash programming as a means of better targeting support specifically towards women and other vulnerable groups.

For humanitarian implementors:

- **Ensure e-cash programming is targeted to women:** It is essential that e-cash programming is accompanied with broader training to help female consumers and female entrepreneurs to gain and improve digital literacy through robust engagement of the private sector to ensure the supply and agencies to support the demand.
- **Establish in house cash and market expertise:** For e-cash systems to be scaled up, NGOs must invest in in house expertise to functionalise the supply chain of e-cash and to support robust engagement of the private sector (i.e. e-FSPs, retailers and wholesalers)
- **Implement e-cash programming hand in hand with a capacity-building approach.** This includes:
 - Increasing absorption capacities amongst rural vendors.
 - Improving the connection with urban wholesales.
 - Addressing gaps in off-line systems.
 - Ensuring continued supply of e-cash to the retailers to support the ongoing functioning of the e-cash value chain.
 - Increasing incentives to convince more retailers and wholesalers to accept digital payments.
- **Ensure e-cash is implemented within an integrated programming approach.** This includes:
 - Maintaining centrality of protection in e-cash programming.
 - Tailoring programming to target disadvantaged groups who may lack the digital literacy necessary to access e-cash or lack independent access to a mobile phone.
 - Ensuring ownership of a valid tazkera (national identification document) doesn't act as an obstacle for displacement-affected populations to accessing digital solutions and financial inclusion. More attention should be paid to ensuring all future programming on e-cash solutions comes hand in hand with comes hand in hand with appropriate civil documentation support to project participants.

For private sector actors:

- Reach out to NGOs and consider how partnership can be built into growth strategies.
- Participate jointly with NGOs on project design to ensure alignment of incentives for both parties to share ownership and risk.
- Actively build into investment plans approaches that make *last mile solutions* viable.

3 Questions and answers

How is the Electronic Financial Service Provider (E-FSP) regulated?

Hesab Pay is part of Moore Global, an accountancy network of 29,000 people in 547 offices across 113 countries. Hesab Pay is over 100 years old and is registered with central bank (Da Afghanistan Bank) and compliant with national and international banking sector policies and regulation.

How has NRC approached data protection with the Electronic Financial Service Provider (E-FSP)?

Hesab Pay and NRC respect the national data protection regulation of Da Afghanistan Bank. Wherein there is principled commitment that only dedicated staff are authorised to access and use related data. Participant data is not available to the authorities. NRC shares a password protected list of project participants to create accounts and transfer the e-cash.

In future e-cash scale-ups, NRC may consider using the enterprise account, where organisation will not have to share the list of project participants, and NRC's finance team will directly be able to transfer the amount.

What will happen to the e-cash system after NRC support has finished and there is no more cash being injected into the system?

E-cash accounts are like normal bank accounts for project participants as well as for the retailers and wholesalers. These interoperable accounts are not timebound and will remain active and in use and are not restricted to NRC. Currently it has been observed that project participants, retailer and wholesalers are transacting cash into different accounts for purchases and use the accounts for saving purpose.

The supply chain in between wholesale and retail will continue to function for business transactions, which enables them to accept e-cash, as it has added value in the effectiveness and efficiency of businesses, by reducing transport costs, time on the road and the risks of carrying physical cash.

At the project participants level, as these target households are the most vulnerable and dependent on the external support from relatives living in other provinces or cities, there is a high possibility that they will maintain the e-cash account for cash-in

transactions. This pilot can have its ripple effects by the passage of time to broaden the base of e-cash ecosystem.

How much does it cost to run cash-based assistance this way?

Currently the e-cash system costs the same 3 per cent of commission rate as existing Hawala or normal banking sector transfers. However, with e-cash systems, NGOs can view online dashboards for real-time monitoring, it is free to open an account, and additional financial incentives can be provided for customers and merchants on e-transactions for mobile credit purchase, electricity bill payment, e-cash acceptance etc. Beyond the embedded services and offers, it is time, cost, and effort efficient at each layer of stakeholders.



Photo: Maisam Shafiey/NRC

Bibi Shahgul, 45, is a project participant of NRC's digital cash initiative in Maiwand district of Kandahar. She is now able to purchase the necessary materials for her house using the e-card provided to her.

Annex 1 - Outcomes from post pilot evaluation

Project participants:

Introduction to E-Cash Usage: 93 per cent of respondents indicated that they were utilizing E-Cash for the first time, having established their electronic accounts.

Perceived Benefits of E-Cash: The entire respondent pool, encompassing 100 per cent, expressed favourable opinions regarding the efficacy of E-Cash in terms of safety, facilitating purchases, and enabling convenient access.

Learning and Proficiency: Approximately 71 per cent of respondents conveyed that they acquired the skill to transfer funds through electronic cash, reflecting a proactive engagement with the learning process.

Awareness of Receiving Process: An impressive 86 per cent of participants demonstrated awareness of the procedure involved in receiving money through digital accounts.

Ease of Use and Speed: A substantial 98 per cent of the surveyed individuals attested to the ease and promptness of utilizing e-cash. Within this group, 62 per cent found it somewhat easy, while 36 per cent considered it very easy and quick when compared to conventional currency.

Convenience in Financial Transactions: A noteworthy 74 per cent of respondents acknowledged the convenience of e-cash in their financial transactions, with a subset of 14 per cent expressing a high level of convenience.

Recommendation and Future Utilization: A significant 74 per cent of project participants expressed their willingness to recommend digital cash to others. Additionally, all project participants confirmed their intent to use an E-Cash account for transactions involving individuals residing outside their primary residence due to the perceived advantages of safety, speed, and ease of use.

Technical Performance and User Experience: Remarkably, none of the respondents encountered access or technical issues while using E-Cash. Feedback from participants highlighted a smooth and simple process, with 31 per cent characterizing it as straightforward and 69 per cent finding it somewhat simple.

Retailers

Diversity in Retailer Engagement: Half of the retailers, constituting 50 per cent, were actively involved in selling grocery items within the remote market. These items encompassed a broad range, including but not limited to flours, sugar, sweets, black to green teas, rice, beans. Additionally, 17% of retailers were focused on

pharmacy products, while another 17 per cent each operated clothing stores. Furthermore, 8 per cent of retailers were engaged in both shoe shops and butcher shops.

Retailers' E-Cash Proficiency: A notable 93 per cent of retailers indicated a high level of understanding, rating their comprehension of E-cash operations at more than 80 per cent after gaining one month of experience.

Comprehensive Understanding of Digital Cash: All retailers reported a solid understanding of digital cash, with 100 per cent confirming their ability to both send and receive money through digital accounts. However, 42 per cent suggested the implementation of refresher orientation sessions.

Frequency of E-Transactions: Most retailers, comprising 83 per cent, engaged in e-transactions between six and 20 times in the last 15 days, highlighting the regularity of their digital transactions.

Positive Impact on Income: An overwhelming 92 per cent of retailers reported a positive impact on their income because of accepting e-cash transactions.

Utilization of Accumulated E-Cash: The accumulated e-cash proved beneficial for retailers, with 42 per cent exchanging it from E-FSP, 33 per cent utilizing it for wholesale purposes, and an unspecified percentage applying it for savings after establishing an e-cash account.

Recommendation and Incentives: All retailers expressed a willingness to recommend e-cash to others, citing its ease of use, safety, time-saving attributes, and increased profitability. They also highlighted the incentives associated with e-cash transactions.

Wholesalers

Digital Transaction Proficiency: The entire cohort of wholesalers, comprising 100 per cent, confirmed their adeptness in sending and receiving money through digital accounts, reflecting a comprehensive understanding of digital transactions.

Transaction Frequency and Impact on Income: A significant portion, specifically 66 per cent of wholesalers, reported engaging in one to five transactions in the previous month, attributing a positive impact on their income to the acceptance of e-cash transactions.

Use of e-cash for Procurement Practices: According to PDM data, none of the wholesalers procured goods from key suppliers or manufacturers using e-cash, as the main suppliers were located outside the country. Wholesalers acknowledged the efficiency of e-cash in saving travel time and costs for their customers.

Strategies for Encouraging E-Cash Adoption: To promote the adoption of e-cash among market actors, two wholesalers suggested two key strategies. First, increasing the number of e-cash accounts was recommended, and secondly, conducting awareness sessions to educate market participants about the benefits of e-cash.

Annex 2 - Dashboard



Dashboard for NRC Pilot with HesabPay - Oct 2023

Total Project Participants



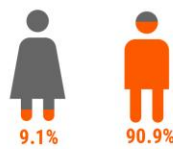
PP who redeemed



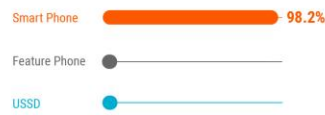
Type of transactions - value of total outgoing transactions

Transaction Method	Transaction Count	Transaction Amount
Pay Store	1,028	3,031,672.82
QR Code Card Transfer	254	663,108.01
Cash-out	5	40,389
Buy Air Time	41	7,045
Fund Transfer	1	2,000
Cashout Commission	5	201.95

Participants by Gender



Participants by Phone Type



Legends:
QR Code Transfer: Digital transaction
QR Code Card Transfer: Feature phone transaction
Fund Transfer: peer to peer transaction

Type of transactions - % of total outgoing transactions

- Pay Store
- QR Code Card Transfer
- Buy Air Time
- Cash-out
- Cashout Commission
- Fund Transfer

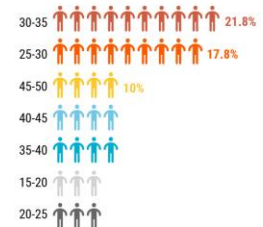


Merchant Type for Outgoing Transactions

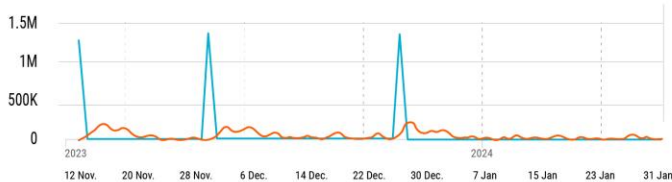
- Grocery
- Clothes Store
- Shoes Shop
- Pharmacy
- Butcher shop
- Super Market



Participants Sorted by age



Wallet Balance overtime



Current Wallet Balance

