funDAO

funDAO Pink Paper

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1. Market research

a. What is the problem

The United Nations estimates that about 30% of aid provided for developing countries is lost due to corruption[1]. We would like to increase the efficiency of aid by shortening the distance between donors, beneficiaries and providers using blockchain technology.

b. Tanzania - case study

Tanzania is 55 m. people country in eastern Africa within the African Great Lakes region.

In early 2019 a significant amount of aid from the western countries has been freezed due to problems with corruption.[2]

And even before Tanzania struggled with problems in the field of education. In 2013 60% of students failed the national exam and 93% of primary head teachers agreed to have a shortage of textbooks in their schools.[3]

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[1] https://www.devex.com/news/30-percent-of-aid-lost-to-corruption-ban-ki-moon-78643

[2] https://www.theeastafrican.co.ke/business/Tanzania-now-forced-to-fund-its-budget-as-donor-aid-freeze-bites/2560-4944588-133qq4tz/index.html

[3] http://www.uhrsn.org/2016/03/corruption-in-the-education-sector-in-tanzania-what-can-be-done/

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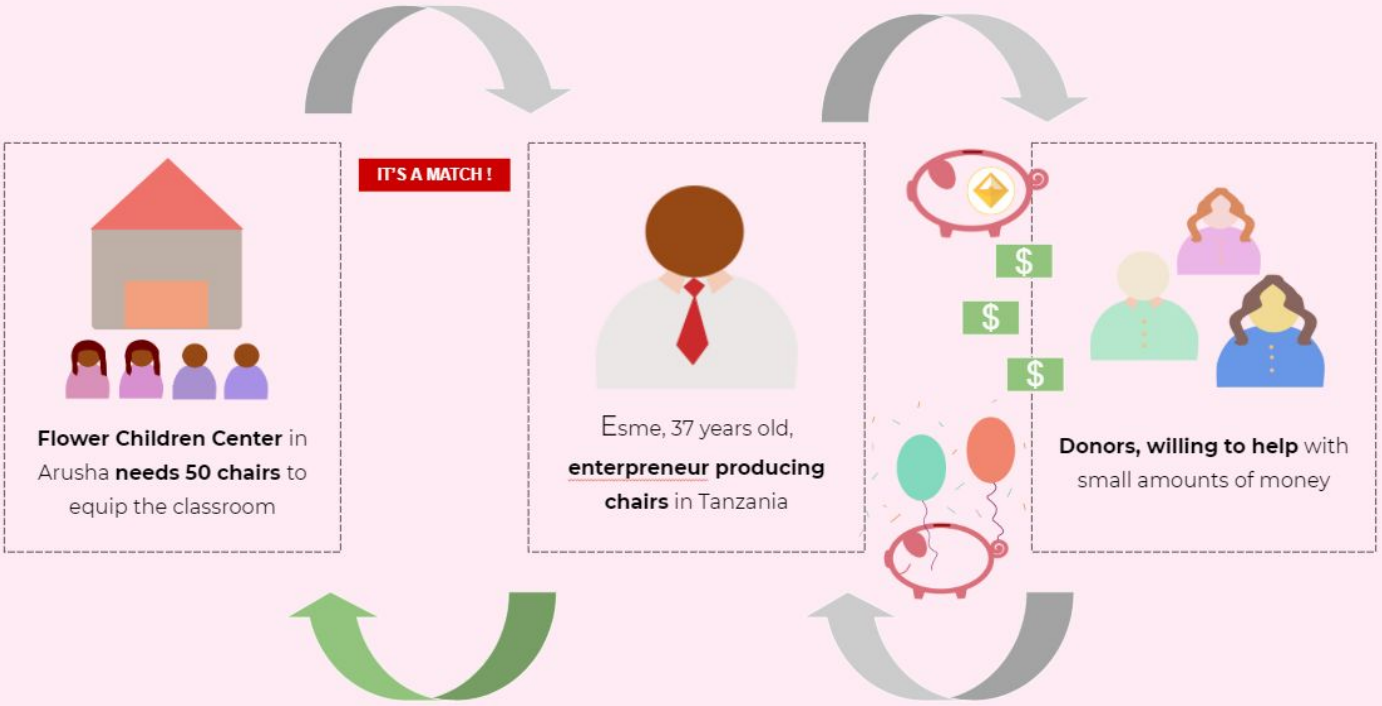
We chose Tanzania as an example because of our own experiences. and limited time to do a research for other African countries.

2. Solution

a. How it works

Our solution is to create a platform that helps to match three parties: schools (beneficiaries), providers and donors.

1) In the first step providers are making general offers to inform the system about their capabilities and in the same time schools creates the orders for the supplies.
2) Our system is matching schools with providers fulfilling their needs
3) A match between a school and a provider creates a smart contract on Ethereum blockchain that waits for the money from the donors.



4) Donors search through the matches and choose the goal they want to support.
5) When a donor makes a donation his/her money goes to the smart contract. But what is important for us is to keep it simple for people

without blockchain knowledge. We would like to use already existing tools like Ramp Network to convert national currencies to DAI.

6) If the goal is reached the smart contract closes and the information about the order is sent to the provider.
7) Next the provider sends the order to the school and confirms it in the system.
8) When the order arrives school confirms it in the system and rates the quality of the order.
9) In the end the smart contract releases the funds and sends them directly to the provider.

b. Why blockchain

In this project blockchain technology would improve several aspects of the process of donation.

Blockchain increases transparency of money giving and allows the donor to actually see where his/hers money is going. Using a traditional foundation system he/she needs to trust this foundation that it spends his/her money as he/she stated in his/her donation goal.

This also allows funDAO not to keep the donors' money at any point. All money is going to be stored in smart contracts and go to the provider directly (or are going to return to the donor in case money collecting fails).

Using blockchain technology in international money transfers is cheaper than using the traditional banking systems and in case of countries with unstable currencies is also more secure to use a token like DAI.

On average a fundations' operation costs fluctuates around 25% of all funds. We plan to minimize the costs thanks to decentralization and lower transactions costs.

c. Providing security of the process

Why we chose school as our main beneficiaries is the fact that schools are public and well-known institution that can be more trusted than an individual person.

Our main concern is the quality of goods that were provided for the beneficiaries. We want to verify every provider. To do this we want to use several methods.

Firstly we want to check if the provider's company is registered in the local registry and where it has its headquarter.

Additionally we would like to ask local NGOs for help with verifying the data of the company. We would like to make a formal agreement with the provider and use it as one of the steps of verification. This would be enough to be enlisted in our system but we still would like to audit the process. We would like to hire auditors that would visit the providers and the schools.

Finally we would like to incentivize fair behaviors. Schools will rate the providers and the providers with higher ratings would have higher chances to find a match in the future.

d. Why are we better than comparable solutions

Our solution has not only a chance to be cheaper and more transparent than a traditional foundations' solution but also we can provide aid in a more responsible way. Many of the similar projects are buying supplies in their own countries and send them to the countries that need it. Sometimes it may be the only way but in many cases such actions can be harmful to the economies of developing countries. Our solution prioritizes local providers of the orders to ensure we are not destroying supply-demand balance.

e. Business model

For our legal form we choose a foundation. Our project is planned as non-profit. However, we would like to charge the donors the maintenance

fee to allow the foundation to be self-sustaining and independent from external funds.

Major costs for the foundation would be a payroll. The foundation would need employees both in a headquarter and in the countries where the application is used.

f. Potential partners

As we plan to use system provided by existing blockchain companies like MakerDAO or Ramp Network we count on their help with promoting our solution to the public.

Also we would like to ask the Ethereum Foundation for the financial help for the start.

Another type of partnership we plan to offer to local NGOs. We would like to cooperate with them to both help them to achieve their goals and to use their help with whitelisting providers for our beneficiaries.

3. Plans for the future

a. Creating a desktop version of the platform

We want to start with a mobile platform because it is easier for the beneficiaries to use mobile phones so it is a priority for us but in the future we would like to have a desktop version.

b. Expanding offers for schools

For now we plan to enable to order only material goods like books or office supplies because it's easier to ensure quality of these items in the contrary to ensure quality of services as teaching. But we know that there is a need for the services and we are going to do a further research in this area.

c. Geographical expansion

For the purpose of Hacking Carrots Warsaw 2019 Hackathon we chose one country, Tanzania, as an example because we had only enough time to research the possibility to implement a blockchain solution from the legal perspective.

We already know that this solution would not be possible to implement in several countries like Algeria as blockchain technology is illegal to use there. [4]

But in general this solution is scalable and could be used even in the developed countries but it won't be as beneficial.

d. Other fields

Our solution is also possible to use in other fields than education. First of all schools can make orders not only for the office supplies and books but it's possible to create orders for food or medical supplies like vaccines.

Additionally it is possible to introduce other beneficiaries than schools. These could be for example hospitals or churches that could be provided with all kind of goods.

4. UN Sustainable Goals

With this project we wanted to answer the problems stated in the United Nations Sustainable Development Goals.[5] We were focused on the goal no. 4: *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.* And we hope our solution is going to help to improve the quality of education worldwide.

We would like to notice that our project can also help in goal no. 9: *Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation* because our solution is embracing local producers.

[4] https://cointelegraph.com/news/algerian-government-eyes-total-ban-on-cryptocurrencies
[5] https://sustainabledevelopment.un.org/#