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# USING BLOCK-CHAIN TECHNOLOGIES IN THE FIELD OF FINANCING ECOLOGICAL EVENTS

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## *Abstract*

The article contains information about using of new, innovative and perspective blockchain tech and cryptocurency in the ecology, the most important sphere of people' life. The digital revolution and blockchain technology improve all economic branches including ecology: they make ecology to be more attractive for investors and more capitalized. The most important advantages of using blockchain in ecological projects are openness of this tech for all participants, excluding of frauds in this tech, transparency of all transactions for benefactors, also this technology can help us to exclude red-tape. Blockchain allows us to unite all donors and acceptors of charity process. Smart-contracts can help to run cash flows, for example, stop financing projects until an organization reach its planned KPI, accepted by an independent side. If this independent side decline its fact performance indicators, money will be returned to a benefactors. However, there are some problems for using blockchain and cryptocurency in ecological sphere. First of all, there is the lack of laws for improving the charity sphere. Secondly, cryptocurrency is not fully integrated in payment systems in all countries. Finally, the low level of financial tech among people plays essential part here. There is step-by-step instruction for realization of a charity process. Via this instruction, every benefactor can donate his/her money using blockchain. The benefactor can see all the cycle from beginning to finish of the project.



**Keywords:** Block-chain, crypto-currency, ecology, ways of financing, technology, digital platform.

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## 1. Introduction

Despite the strong link of block-chain with finances, there are no limits in using block-chain in other spheres. Nowadays block-chain is developing rapidly in our world, in many branches of economic. This technology is digital data base including record grouped in linked block of one chain and protected by cryptographic encryption.

## 2. Problem Statement

Digital revolution and cryptocurrency popularity make entrepreneurs and investors sure that digital assets are worthy for investments including the ecological sphere. At the present time the quantity of ecological companies and start-ups using block-chain. Along with banks and fintech start-ups, the participants of non-financial markets also pay attention to block-chain, they become to find ways of yielding profit from it.

## 3. Research Questions

Block-chain is the technology of safe data keeping, others cannot steal, alter or delete them. We can keep data about transactions, credits, copy-rights and etc via block-chain. In general, all records can be kept in block-chain and it is impossible to alter or fake them.

Block-chain technologies are the best of all mechanisms and institutes, people trust block-chain more and more. Unfortunately, we need to develop block-chain in Russia more intensively because market-players in Russia do not trust these technologies as strong as in foreign counties. The quicker block-chain can be embed it in Russian markets, the quicker the growth in productivity can take place in our economy.

## 4. Purpose of the Study

For many people the word “block-chain” is strongly linked with digital finances and cryptocurrencies. It is a right suggestion that thousands of business projects have been developed via block-chain, hundreds of cryptocurrencies have been created allowing every person use them as instruments of payment for recent 10 years. However, cryptocurrency is just one of many ways in block-chain industry. To tell in in global aspect, block-chain is used in many non-financial spheres. The list of apps based on block-chain becomes wider every day. Centralized institutions understand that block-chain can make better some spheres that, at the first blush, do not have the correlation with crypto-technologies (Tapscott & Tapscott, 2017). One of these spheres is ecology that is the main thing in this article.

Block-chain is used in processes where people should trust techs including ecological start-ups. Ecology is a good example where trusting plays an important part. Using block-chain in ecology is essential because unscrupulous companies make money from citizens via environmental pollution. It need to be changed. We need to use all instruments that can help to capitalize ecological sphere, including block-chain.

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## 5. Research Methods

Nowadays there are countries who use crypto-currencies to make taxes for ecological projects lower. The most important advantage of block-chain is excluding of data stealing and fraudulence. Because of it, this technology is about excluding corruption and opacity in the spheres which are complicated to be controlled since there are a lot of participants. Another good thing here is the opportunity of benefactors to track the life cycle of their investments in an ecological project. In other words, despite the charity sum (in the cryptocurrency equivalent), a benefactor can track the direction of his/her money from beginning to the end of the projects.

## 6. Findings

Block-chain can fully change principles of financing separate ecological projects/ ecological platforms allowing organizations and citizens to aid ecological projects and renew trusting of benefactors of how their money are spent. The high level of social responsibility, big sums of money, hard accounting and red-tape make the activity of ecological organizations to be more difficult. Because of it many ecologic funds around the world have already used block-chain and achieved first goals.

Getting crypto-currency fees is used by BitGive Foundation, Alice.si and etc. These organizations work directly with charity donors and acceptors including ecological organizations, their activity is fully transparent since all cash flows can be tracked via block-chain. British block-chain platform Alice.si (Vina, & Casey, 2017) – is a social instrument which allows charity companies to increase money from benefactors and show them cash flows. The ".si" from name of this platform means "social impact". Using smart contracts based on Ethereum, Alice.si blocks donations until all ecological organizations can demonstrate real results audited by an impartial side. It means that the donation is guaranteed to achieve the acceptor. Other way, money is returned to the donor.

The American Conny Gallipi has started the fund BitGive (Bogatyrev & Dobrynin, 2015). )in 2013, the first nonprofit company using bitcoins for donations. Users can track his cryptocurrency, ways of its using. Gallipi emphasizes that the quantity of donations depends on the bitcoin price: when it rises, BitGive gets more money on charity, including on ecological projects.

Gallipi has announced about GiveTrack (Bogatyrev, 2017) in October 2017- multipurpose platform for donations based on blockchain. Every person can donate a sum of money from every country with the opportunity of tracking his transactions. Common Collection is the Canadian company using blockchain for helping to refugees and people in need. Many of acceptors here have suffered from ecological catastrophes.

Blockchain Charity Association finances different ecological projects. Every fund which wants to make the transparency principle in ecology can unite with this association. According to "Skolkovo" data, Russians spend around 2,2-2,5 billion $ on charity, including ecology. Russia is eights in the "charity rating" of all countries. The quantity of donations from private companies is rising every year. However, there are some problems that disturb financing of ecological projects. The strongest barrier here is the lack of mass using of cryptocurrency and the need for "comfortable" laws and regulations in this area.

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That is why today there are so few ecological organizations willing to receiving crypto donations (Bogatyrev, 2018).

Another obstacle here is the shortage of knowledge in this area. People can only imagine the general principles of blockchain and cryptocurrency. However, people need easier ways for taking part in crypto market and deeper understanding of this thing. Many people do not know the real financing mechanism of ecological projects, this detail interferes investments in ecological sphere. To sum it up, we need to do some simple steps to donate in ecological projects. There is a short instruction for it (Grigoriev, 2013).

First of all, a person need to obtain a crypto-wallet where the cryptocurrency will be kept. The easiest way to get cryptocurrency is to buy it for fiat (ordinary \paper) money on the exchange \ on the Internet \ using a credit card\ using special programs that are created to simplify the whole process of entering a crypto world for a beginner. Then, when a person has the cryptowallet, he/she should choose an ecological organization and open a donations` page on its web-site. A person should copy a bitcoin-address where the donations can be made and a person should send his/her money to this address. After a transaction a person can track a “life cycle” of the donation to be sure than our money is used properly. However, how should we act if our cryptocurrency does not match to accepted cryptocurrency of an ecological organization? The best way here is to use instant cryptocurrency exchange service that can help us to exchange our currency quickly. For example, you have XRP (cryptocurrency of the Ripple network), but the ecological organization accepts donations only in BTC (bitcoins). Therefore, you need to exchange your XRP for BTC. This process is as follows: open the main page of the Changelly service, set the amount of XRP \ Ripple \ that you want to donate. Select BTC \ Bitcoin \ as the final type of cryptocurrency. You will see the approximate amount of BTC \ the amount in bitcoins \ that you will receive after the exchange. Click the share button. Next, you will be redirected to the exchange page. The whole process consists of 5 stages and will take from 5 to 30 minutes of your time. Now that BTC \ Bitcoins \ are transferred to your crypto wallet, you can use it for donations (Grigoriev, 2018).

## 7. Conclusion

To sum it up: in the age of fintech every crypto-enthusiast has an opportunity to take part in creating the future of our dream-where a person does not depend on centralized banks and can freely dispose of his/her money for both personal and ecological purposes, along with the ability to see how these funds work for the benefit of all citizens. Blockchain is the powerful instrument that has encouraged the ecological sphere to develop itself. After a few years, blockchain and cryptocurrency can be the basis of the whole ecological industry, due to which the population will increase the level of trusting in the work of ecological organizations. It means that the volume of financing of ecological projects by organizations and individuals can also increase. In addition, it can be expected that violations in the distribution of ecological donations will become much less because transactions can be tracked without problems. Unfortunately, we cannot see very popular using of blockchain. There is the lack of data about financing ecological projects in cryptocurrency, the quantity of cryptocurrencies for ecological purposes can make people be optimistic.

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