

#### Аносова Анастасия Олеговна

студентка

Научный руководитель

### Савина Светлана Владимировна

канд. физ.-мат. наук, доцент ФГОБУ ВО «Финансовый университет

при Правительстве Российской Федерации»

г. Москва

### ABOUT CLASSIFICATION OF ELECTRONIC MONEY

**Аннотация**: в статье приведены примеры различных электронных денег. Автором также рассмотрена классификация электронных денег, основанная на нескольких критериях.

**Ключевые слова**: электронные деньги, цифровая экономика, инновации, безналичные расчеты.

**Abstract**: in this article, examples of different kinds and a classification of electronic money based on different criteria are considered.

Keywords: electronic money, digital economy, innovations, cashless payments.

It's no secret that technological developments have influenced all aspects of the life of modern society, including changes in existing payment systems. Today only a small part of the money supply circulates around the world in physical form, and electronic money is an integral infrastructure part of the digital economy now.

Electronic money (E-Money) is a non-cash payment tool in addition to credit and debit cards, offering the ease, speed and efficiency of operations that exists within the computer system of a particular financial institution.

## 1. By type of carrier.

So, electronic money refers to the money that exists in banking computer systems and can be used to facilitate electronic transactions. Despite the fact that their value is supported by paper currency and, therefore, can be exchanged for physical, material form, electronic money is mainly used for electronic transactions due to the convenience of this method.

By type of carrier, electronic money is classified into card-based money, for example, Proton, Visa Cash, Mondex, CLIP systems, and network-based money, which are issued by the issuer upon receipt of ordinary money and can be transferred over the Internet, as in the systems Yandex. Money, WebMoney, Wallet One, E-Gold.

The definition of «card-based» is rather arbitrary, because any other storage medium, for example, a flash card or a mobile phone with built-in NFC technology, can be used as a smart card. Unlike bank cards that do not reflect the status of the account, but only contain information about the type of card, owner, account number, a smart card directly contains information about «electronic cash» in its own memory and allows you to make payments offline without requiring authorization to payment system. Smart cards are used, for example, to pay for public transport or a bill in a cafe. The main disadvantage of a smart card is that in the event of its loss, it is not always possible to return funds, as is the case with the loss of cash.

## 2. By transaction method.

Network-based electronic money is divided into centralized and decentralized. Settlements in centralized electronic money systems are possible only with direct authorization in the system, as a result of a transaction, it is necessary to make changes to the database by a centralized regulator. For such operations, bank cards, special computer programs or system websites are used.

Transactions in decentralized payment systems do not require the participation of a centralized regulator, but only need access to the Internet, which eliminates the risk of temporary malfunctions in the system's performance.

# 3. By issuing institution.

According to the form of issuing banknotes (issuing institution), electronic money is classified into fiat, non-fiat and virtual (gaming). Fiat are expressed in one of the state currencies and are a type of monetary unit of the payment system in the state. So, an example of electronic fiat money based on networks is: payment system M-Pesa, widely used in Africa, international payment system PayPal. Smart card-based electronic fiat money includes the extremely popular Octopus proximity cards in Hong Kong and the Chipknip system, which combines all bank cards issued by Dutch banks.

The issue, circulation and redemption of fiat electronic money, respectively, are controlled by the state and are regulated by the laws of this country.

Non-fiat electronic money is expressed in units of value of non-state payment systems. The issue, repayment and circulation of such money is carried out in accordance with the internal conditions of the given payment system, and their real value and reliability are not provided by the state. Such electronic money is widely represented by a network of payment systems such as Yandex.Money, QIWI, and cryptocurrency systems (Bitcoin, Litecoin). Payment units in these systems can be named like the national currency, for example, as in the Yandex.Money system, or can be represented by other signs, as in the WebMoney system, in which the currency units are represented by the abbreviations WMR, WMZ, WME, equivalent to the ruble and the dollar Euros respectively.

Another example of non-fiat electronic can be cryptocurrency, the payment unit of which is a certain digital coin (BTC, LTC), and its rate is formed by the balance of supply and demand.

Virtual (gaming) electronic money is the internal gaming currency in online communities such as online games, virtual worlds and social networks. The exchange rate of a virtual currency is most often not tied to the exchange rate of a national currency, the issue of this type of electronic money is unlimited, and the exchange for a national currency is either impossible or involves significant restrictions. An example of such electronic money can be «voices» on the VKontakte social network, giving users certain privileges.

## Список литературы

- 1. Бондаренко Т.Г. Электронные деньги в России: современное состояние и проблемы развития / Т.Г. Бондаренко, Е.А. Исаева // Статистика и экономика. 2016. №5. С. 42–45.
- 2. Магомедов Р.М. Анализ крупнейших компаний мина на рынке IT-услуг / Р.М. Магомедов // Самоуправление. 2019. №2. Т. 2. С. 398–401.

- 3. Магомедов Р.М. Программные обеспечения онлайн-сервисов в экономике совместного потребления (sharing economy) / Р.М. Магомедов, С.В. Савина, В.А. Асланян // Евразийский юридический журнал. 2019. №1. С. 410–412.
- 4. Магомедов Р.М. Тенденции использования информационных технологий в логистике // Р.М. Магомедов, С.В. Савина, А.Р. Неврединова // Самоуправление. 2019.  $\mathbb{N}_{2}$ . Т. 2. С. 190–193.
- 5. Магомедов Р.М. Анализ природы и перспектив развития рынка ICO / Р.М. Магомедов, С.В. Савина, Е.А. Деменкова // Экономика: вчера, сегодня, завтра. -2018. N 212A. C. 262 267.
- 6. Магомедов Р.М. Робоэдвайзеры как основа финансовых технологий будущего / Р.М. Магомедов, Т.Л. Фомичева, Н.М. Граур // Экономика: вчера, сегодня, завтра. 2018. №12А. С. 256–261.
- 7. Магомедов Р.М. Анализ сервисов бесконтактной оплаты в смартфонах России / Р.М. Магомедов // Самоуправление. 2019. №4. Т. 2. С. 191–194.
- 8. Савина С.В. Технологии BIGDATA и их применение в экономике / С.В. Савина, Т.Л. Фомичева, А.Р. Сальманов // Самоуправление. 2019. №3. Т.2. С. 282—285.
- 9. Савина С.В. Анализ корпоративных информационных систем, используемых на российском рынке / С.В. Савина // Самоуправление. 2019. №4. Т.2. С. 294—297.
- 10. Савина С.В. О применении искусственного интеллекта в экономической сфере / С.В. Савина // Самоуправление. 2019. №4. Т.2. С. 297–300.
- 11. Строителева Е.В. Электронные деньги: виды, сущность и перспективы развития / Е.В. Строителева, И.Б. Мигачев // Дискуссия. 2014. №6. С. 54–60.
- 12. Танющева Н.Ю. Электронные деньги через призму денежных функций / Н.Ю. Танющева // Финансы и кредит. 2016. №16. С. 40–49.