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## A STUDY ON THE LINKING OF CRYPTOCURRENCIES IN E-COMMERCE SECTOR

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**Abstract:** As the world moves to a Cashless economy, something more has sprung up in this move. Cryptocurrencies are becoming the medium of making payment in this cashless era. The hard cash money has been turned into virtual currencies in an encrypted form. Supported by Blockchain technology, these currencies have changed many of the definitions of today. Transactions in today's time are slowly moving towards it. But there are uncertainties related to its use and application. This paper aims at understanding the use of Cryptocurrencies through the lens of E-Commerce sector. The ever growing platform of the E- Commerce sector will be very much impacted with the use of such payments. The study includes the understanding of the pros and cons in this respect along with the keys to face the challenges.

**Keywords:** Cryptocurrencies, Blockchain technology, E- Commerce, Transactions

### I. Introduction:

The new talk of the town is 'Cryptocurrency'. Till now we were busy understanding and using plastic money , UPI payments, internet banking, Payment apps and all source of cashless transactions. But no one thought about exchanging virtual currencies over transactions. Such currencies which could be used online and exist only in the electronic form are called Cryptocurrencies. It is a medium of exchange that is decentralized and digitally encrypted and so it can be also used as a form of payment in exchanging goods and services online. These currencies work using the Blockchain technology. The Blockchain technology is one among the most hyped technological revolutions of the century. Initially it was developed to power the bitcoin but now it handles thousands of currencies. Blockchain is an open digital ledger consisting of transactions maintained by network of computers in such an arrangement that is difficult to alter and hack. The currencies could be easily exchanged between the individuals without the involvement of banks and third parties. These records of transactions are called blocks linked together using Cryptography. The data is independently verifiable and cannot be altered after recording. The use of such currencies in e-commerce is of a great significance to study. E-Commerce is a platform where multiple transactions take place. So how these virtual currencies are going to impact the e-commerce sector is an essential point to study.

### II. Linking Cryptocurrencies & E-Commerce:

The use of cryptocurrencies in E-commerce can be linked to the transactions that take place during the exchange process. Here the payment procedure happens without the involvement of any third party like a bank or any financial institution. Over the time it has become important and purposive for the e-commerce companies to accept the crypto payments. The one making a crypto payment has a digital wallet which is procured through crypto currency exchanges or in the offline mode with the help of a flash-drive like device. The consumer can use this wallet to transfer funds to the desired vendor. There are many cryptocurrency exchanges available. The four most prominent among them are:

1. Bitcoin (BTC)
2. Litecoin (LTC)
3. Ethereum (ETH)
4. Ripple (XRP)
5. Bitcoin Cash
6. Ethereum Classic

Market can now be viewed in a different perspective. A new class of consumers have entered the market, who are tech-savvy and forward thinking. A faster transaction process can be assured with the use of such currencies. The companies accepting such payments have found themselves at a greater height after this acceptance. Especially in the retail sector the use of cryptocurrencies is gaining favor. It is in a great way enhancing the consumer's journey and broadening the consumer base. The use of plastic money is the most common method of payment along with the online payment gateways but if the consumer's become in habit with these cryptocurrencies then the other payment gateways would be less preferred. Thus, the linkage between the cryptocurrencies with the e-commerce platform is viable and promising.

### III. Advantages of using Cryptocurrencies in E-Commerce

#### Assurance of Market Expansion

This new payment method assures the marketers the entry of consumers on a wide scale. Such consumers have a desirable knowledge of technology and are future oriented in every sense. Consumers have a digital wallet could enter any e-commerce platform and transact easily, thus broadening the market. Worldwide the consumers and sellers are running the exchange process and expanding the market.

#### Increased Security

The main purpose of creating blockchain powered currency was to prevent the fraudulent activities which take place during the exchange process. There is no inclusion of any middlemen in the transaction process. Even the financial institutions have no hand in this entire process. All the details of the transactions are kept confidential and only the user of the digital wallet can have access to it. Only with an explicit permission, money can be withdrawn from a user's wallet.

#### Benefit of Anonymity

The purchases can be done without revealing any personal information and anonymity can be maintained. The wallet addresses are encrypted, so there won't be any leakage of confidential information during the transaction.

#### Low transaction cost

Each transaction is associated with a low transaction fees. Only a nominal percentage of fee is charged while transacting with the cryptocurrencies. But this does not include the taxes. The inclusion of taxes is based on the regulations of the country.

#### Faster transactions

The processing of the cryptocurrency is quite fast as compared to the credit card system. E-Commerce companies are very much benefitted with this advantage as it helps the company to maintain the flow of its funds. There is quick transfer of fund into the wallet as well as prompt payments can be assured through this.

### IV. Disadvantages of using Cryptocurrencies in E-Commerce

#### Volatility

Since these currencies are not backed up by an official currency, there can be chances of volatility in their inherent value. This will have a detriment effect on the prices which may fluctuate at a high level. The investment by the potential investors will be reduced in such circumstances.

### **Threat to Sustainability**

Sustainability stands as a threatening issue as the mining of the cryptocurrencies involves a great of energy. Such massive energy consumption in form of electricity use affects the environment's sustainability. In the future, regulations and taxes can be imposed on such currencies.

### **Problem of Scepticism**

Lack of public trust still surrounds the cryptocurrencies due to the complicated technical mechanism. There is a creation of distrust created through the media which pulls back the users from such transactions. Thus this will pose a problem of reduced consumer market for the e-commerce platforms.

## **V. Key Requirements to adopt Cryptocurrencies**

### **Awareness**

It is very important that there is a level of acceptance and the understanding of cryptocurrencies among the consumers. Though cryptocurrencies have attained much attention through media coverage and other sources now-a-days, but still it is relatively an unfamiliar concept for many. So it may become difficult for businesses to make customers use cryptocurrencies as a payment option, especially if they are unaware with how to use such currencies or are doubtful about the security of payments with these digital assets.

### **Infrastructure**

The next factor to consider is infrastructure and the backup available for businesses to facilitate and process crypto enabled payments. Though there are several platforms and services available to make easier for businesses to manage cryptocurrency payments, these solutions may be sophisticated and not widely adopted than traditional payment gateways. This makes it more challenging for the businesses to induce cryptocurrency payments into their already existing e-commerce systems and may have to go for additional resources and expertise to set up and maintain.

### **Regulations**

There are various regulatory and compliance issues to use cryptocurrencies in e-commerce. There are many countries, where still a lot of questions and doubts about the legal status and treatment of cryptocurrencies, which can be a challenge for the businesses that want to accept cryptocurrencies as payment option.

## **VI. Conclusion**

There possibilities to link the cryptocurrencies with the e-commerce sector. But there are many challenges ahead which may be a barrier to this initiative. As the e-commerce sector grows the use of crypto currencies would give a big boost to it. The broadening of the consumer base, security enhancement, speedy transactions, and confidentiality will all make the consumers believe in the use of such payments. The benefit to the consumers will be a greater benefit for the companies as well. Only after creating a strong base and backup, such currencies will find a value in the transaction process. So thus the cryptocurrencies and their application is a challenge with a wide road of opportunities.

**VII. Bibliography and References:**

[https://orca.cardiff.ac.uk/id/eprint/126790/7/Blockchain%20Paper%20-Sept\\_26\\_2019%20-%20updated.pdf](https://orca.cardiff.ac.uk/id/eprint/126790/7/Blockchain%20Paper%20-Sept_26_2019%20-%20updated.pdf)

[https://www.academia.edu/39803603/Impact\\_of\\_Digital\\_Currency\\_in\\_E\\_commerce](https://www.academia.edu/39803603/Impact_of_Digital_Currency_in_E_commerce)

[http://ijrar.com/upload\\_issue/ijrar\\_issue\\_20543250.pdf](http://ijrar.com/upload_issue/ijrar_issue_20543250.pdf)

<https://www.sciencedirect.com/science/article/pii/S1567422321000260>

<https://www.gorillagroup.com/trending/the-adoption-of-cryptocurrencies-in-e-commerce>

<https://www.sotatek.com/the-rise-of-cryptocurrencies-and-blockchain-in-e-commerce-benefits-and-challenges/>

<https://www.business.com/articles/6-reasons-to-accept-cryptocurrency/>

<https://www.sciencedirect.com/science/article/pii/S0160791X22002007>

