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# How Technology and Blockchain are Changing the World of Taxation

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## ABSTRACT

*In this taxation world, many aspects of the digital revolution are still welcoming. These can give rise to considerable benefits now. Blockchain technology has emerged as a solution in case of indirect taxes also. This technology can transform the tax regime and can contribute majorly to digital India. Transparency of the system will remove all the loopholes from the system and tax evasion will also become impossible which will ultimately lead to a reduction in frauds and a tampered proof system. The concept of digital taxes, a new type of tax such as value-added tax (VAT), income tax, e-commerce tax, and stamp tax has emerged. The drastic change in digital tax compliance and digital governance has led to an evolving role for the stakeholders involved, such as businesses, the government, and tax consultants. This paper examines how technology and blockchain are changing the world of taxation.*

## I. INTRODUCTION TO BLOCKCHAIN

In 2008, the Internet quietly welcomed a mysterious white paper, written by a person Satoshi Nakamoto. The paper proposed a 'peer-to-peer network using proof-of-work to record a public history of transactions that quickly becomes computationally impractical for an attacker to change if honest nodes control a majority of CPU power. The publication described a new, digital currency based on the idea of cryptographically chaining blocks of data, designed to rely solely on computer technology, detached from any intermediaries. This was the dawn of Bitcoin. For years, Bitcoin grew in popularity and value, but the underlying technology called blockchain remained largely unnoticed or associated strictly with Bitcoin. Nowadays blockchain has evolved from being a quiet presence behind Bitcoin to a technology that could potentially revolutionize the way we conduct payments, store data, verify audit trails, register digital assets, and perform transactions.

Blockchain is a way to record information in a way that no one can change or no one hacks it. Cryptocurrencies are the major reason for the technological development of blockchain. The cryptocurrencies have a total market capitalization of \$60,000. Blockchain's security makes

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theft and other cyber frauds much harder since each cryptocurrency has its irrefutable identifiable number that is attached to one owner.

The existence of bitcoin without blockchain is not possible but the existence of blockchain without bitcoin still has a wide range of uses.

**Characteristics of Blockchain** are Enhanced security, Greater transparency, Instant traceability, Increased efficiency and speed, Automation, Decentralized and Consensus.

## **II. TAX TECHNOLOGY**

### **(A) Smart Contracts**

Nick Shabo invented smart contracts in 1994. Smart contracts are referred to as digital agreements which are present in the form of a computer program. In smart contracts, all the terms and conditions for agreement are inbuilt and are programmed into contracts by the programmers. Illegitimate or inefficient tax operations could be prevented with a global suite of smart contracts deployed on top of a consortium distributed ledger with on-chain governance. Smart Contracts take part in a vital role in increasing the speed of tax calculations and adjustment of amounts. To contribute to contactless transactions over the internet in a safe manner is their major motive. This whole process is been controlled with the support of smart contracts as per the rules and regulations of the GST Act.

#### **Example:**

The Seller disclosed the GST invoice to the buyer and now the buyer pays the bill and GST tax for the goods. And the seller also pays the bill along with GST to the supplier. Hence, the terminal tax is associated with the government only. All these payments are settled with the help of these smart contracts. It makes the system easy, efficient, and user-friendly.

### **(B) Blockchain and Taxation**

In 2015, the World Economic Forum survey found that 73.1% of respondents expected tax authorities widely to have begun collecting taxes via blockchain by the year 2023. In India, the indirect tax is the biggest source of income for the government. Since the implementation of GST in India, the government of India has always tried to make the collection of taxes easy for both that is the taxpayers and for the government itself so that this can lead to a reduction in the budget gap. But the main problem behind the collection of GSTs is that the transaction between the two parties is not recorded in actual time rather it is recorded on the personal choice of assesses like the date of invoice or date of supply of goods.

Blockchain has the potential to simplify and accelerate transparency compliance, tax audits, and decision-making. It may also be the key to facilitating collaboration between businesses, tax authorities, and professional advisors. Blockchain is a ledger of economic transactions that are programmed on peer to peer network to not just record financial transactions but everything that holds any value in monetary terms. Blockchains are also superior for preventing forgeries and disabling unauthorized reversals of transactions.

### **III. PROPOSED SYSTEM OF BLOCKCHAIN WITH GST IN INDIA**

- If we talk about the current scenario the problem with today's system is that if Mr A sells something to Mr B then B will pay GST and goods tax will be paid by B. after this B is entitled to claim the input tax credit on the amount of GST paid but when B will sell those goods to Mr C but when B will claim income tax credit the government will reject his claim because of the disappearance of A and B transactions.

- But when the blockchain system will get merged with GST everything will get auto-recorded with date, product code, invoice number, and after the creation of the first block B will have to accept this updated record by Business and the system will do all the calculations of GST and will take the consideration of non-GST amount to the government. B then makes the payment so that the system divides this amount and gives the GST amount to the tax authorities and the non-GST amount to A.

- B, After getting the value addition gets back their goods from an unregistered entity. This unregistered retailer does not fall under the GST regime so he is not liable for any GST amount. But because of the reverse charge mechanism Firm B will have to make the payment to tax authorities on behalf of the unregistered entity which will lead to the creation of a second block in the system.

From the above example, we can say that by the blockchain system the problem of missing traders can be easily solved.

- Blockchain Tax System records every transaction on the system which makes a record of every good and service in the economy on the system. This process will make the explanation difficult for the Businesses if it is trying to sell an item without an invoice. He only has 2 options the goods shall either be in his stock or his bill book. This will lead to a reduction in fraud in the movement of goods or services.

- Transparency of the system will lead to an increase in trust among the customers about the government which will bring more cooperation from the customer side in making this system tamperproof.
- In the Blockchain Tax System amount of refunds and the interest paid on them from the sides will reduce as the payment of tax is made directly to the government.
- Unregistered firms will also come on the radar of tax authorities as the Blockchain tax system can track the reverse charge mechanism with the help of differentiation between goods and services.

#### **IV. EQUALIZATION LEVY IN INDIA**

An equalization levy was introduced by India in 2016, on revenue earned by non-residents from online advertising and related services. In 2019, the Indian Income-tax law was amended to establish the concept of ‘Significant economic Presence’. Although, while passing the Finance Act 2020, the Indian government deferred its implementation, citing the absence of effective measures in the tax treaties. It is amazed to everyone was the introduction of an Equalisation Levy on sales of goods and services in India by overseas e-commerce operators, which did not form part of the original Union Budget 2020-2021 proposals. This levy is effective from April 1, 2020, and in its present form, has expansive coverage.

Countries such as the United Kingdom, Italy, France, and Russia have introduced equalization levies or digital taxes in a different formation, to suit their respective needs.

##### **Survey of Tax Tech India 2016:**

- Over 90% voted related to a non-automation or partly automated tax reporting compliance system.
- Around 45% of business organizations use the infrastructure which is basic for consolidation and tax accounting.
- Around 24% of business organizations use no integration ERP system for tax software.

The step by the Indian Government which can be an example of the transition to digital space is that “Finance Minister Nirmala Sitharaman on May 28, 2020, officially launched the instant Permanent Account Number (PAN) facility which uses Adhaar number-based e-KYC. The beta facility was earlier launched in February 2020 on the income tax department’s e-filing website”.

## **V. CHANGES IN THE TAXATION PROCESS**

There are new technologies, such as blockchain, Artificial Intelligence (AI), and Robotics Process Automation (RPA) can provide a new era of visibility into transactional data, help manage risk, improve efficiency and provide critical business insight. It can move the function from retroactive analysis and historical financial information gathering to a position where transactions, expenses, assets, and liabilities can be recorded in real-time and publicly scrutinized. Blockchain creates a condition to every transaction is open, verified, and available in real-time.

Taxbots are already being used to transform tax function operations, helping to accelerate indirect tax compliance, tax provision, and sales and use compliance to name just a few activities. Artificial Intelligence will be loaded with information such as tax codes, case law, and administrative guidelines, and will be able to make certain decisions on this basis. Artificial Intelligence is delivering many benefits for the tax function, such as improved decision-making.

### **In Other Countries**

The tax system in developing countries faces both new challenges and new possibilities as a result of technological changes. The Danish Maritime Authority has launched a pilot project to register ships via a distributed ledger to make sure the integrity of all relevant tax payments.

- England provides an example of advancing digitalization. In March 2015 budget the UK government defined a view for a digitalized tax system, entitled “Making Tax Digital” by HM Revenue and Customs (HMRC). The UK and Australian governments are being conducted to examine blockchain’s potential for a range of government services.
- France approved 3% DST on the revenues generated by the global tech companies like Google, Apple, Facebook, and Amazon in its territory. This would apply to digital companies generating worldwide revenues on their digital services from France only.
- One of the first countries in Europe which have taken measures to tackle the issue of digital tax is Italy. The government has introduced 3% DST through the 2019 Italiana budget.
- The Service Tax (Amendment) Bill, 2019, issues the taxation of digital services which is approved by the Malaysian government. The Malaysian Government added Part IX-A in the Service Tax Act, 2018, which mainly deals with the imposition of tax on

massive tech companies registered overseas and providing digital services to the Malaysian consumer.

- The Shura Council in Saudi Arabia ratified the Gulf Cooperation Council (GCC) Value Added Tax (VAT) framework agreement in April.
- New Zealand's tax has undergone a digital transformation for its "Significant Enterprises" segment nearly 600 taxpayer groups. In Canada, e-invoicing is possible but not legally required.
- By imposing digital taxes on technology giants, Australia, Uganda and Malaysia are also following suit.

## **VI. FUTURE OF TAX TECH**

In this new era, stakeholders of tax technology are keen on making the tax function automated and digitalized. Technological advancements are also making the tax function completely digital. Tax technology could prove to be the foundation of a sustainable tax compliance space and give competitive advantages to organizations. The changes in the tax technology space are endless.

Blockchain technology could be prominent in the taxation industry. Even though it is still in a developing stage, it is set to facilitate real-time commerce, without the need for a middleman at every stage. Total trust in the integrity of the system could radically simplify tax compliance and administration. Blockchain can deliver reliable real-time information from many layers on an international scale. Furthermore, its ability to offer greater security, transparency and control over data will be of significant benefit to tax authorities. "Total trust in the integrity of the system could radically simplify tax compliance and administration. They could, for example, simply plug directly onto the blockchain and automatically collect tax without argument", says Mr Mitha.

Blockchain also offers financial Incentives for tax authorities. It could reduce the administrative burden and the cost of collecting taxes. It has the potential to add value to a business, between businesses, between businesses, consumers, and governments. Blockchain may reduce some of the complexity surrounding transfer pricing by providing accounting for intercompany substantial goods transactions and automating price setting and adjustments for tangible goods.

## **VII. CONCLUSION**

A report from the Ministry of Electronics and Information Technology in partnership with

McKinsey concluded that “India can create up to \$1 trillion of economic value from the digital economy in 2025”. As India is a very large state and with a vast population here people can choose between a wide range of businesses for their livelihood and so here it is very difficult to make a proper law hence the law needs amendment from time to time and as per the requirement. The current GST system is surely inefficient to tackle these problems in India as the businesses today require highly qualified staff to make entries of the transaction and to provide returns to the government on a timely basis. Blockchain Tax System provides a tampered proof plan to all these problems through smart contracts and secured ledger. This technology not only increases transparency and security but also makes the whole process more flexible. Any amendment in the act at any point in time can be incorporated into the law. These changes can be anything like a change in the rate of taxes, changes in certain deductions, or any change in the negative list.

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