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The potential of blockchain for VAT recovery and compliance

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Contributed

Antonio Lanotte, European senior finance, controlling and tax manager at Pentair, explains how using blockchain technology can increase a business's VAT recovery rate and compliance burden.

Blockchain technology has several useful characteristics that minimise errors, increase efficiency, track the smallest of micro transactions, and maintain a tamper-free record with real-time updates. With these characteristics, blockchain has the potential to increase a business's VAT recovery rate and compliance.

Firstly, however, this matter needs to be examined from the perspective of accountancy.

As an accounting technology concerned with the transfer of ownership of assets and maintaining a ledger of accurate financial information, blockchain can provide clarity over ownership of assets and existence of obligations, and could dramatically improve efficiency.

The accounting profession is broadly concerned with the measurement and communication of financial information, and the analysis of such information. Much of the profession is concerned with ascertaining or measuring rights and obligations over property, or planning how to best allocate financial resources.

Blockchain, however, has the potential to enhance the accounting profession by reducing the costs of maintaining and reconciling ledgers, and providing absolute certainty over the ownership and history of assets. Blockchain could help accountants gain clarity over the available resources and obligations of their organisations, and also free up resources to concentrate on planning and valuation, rather than recordkeeping.

Alongside other automation trends such as machine learning, blockchain will lead to more transactional-level accounting being

done – but not by accountants. Instead, successful accountants will be those that work on assessing the real economic interpretation of blockchain records, marrying the record to economic reality and valuation. For example, blockchain might make the existence of a debtor certain, but its recoverable value and economic worth are still debateable. Further, an asset's ownership might be verifiable by blockchain records, but its condition, location and true worth will still need to be assured.

By eliminating reconciliations and providing certainty over transaction history, blockchain could also increase the scope of accounting, bringing more areas into consideration that are today deemed too difficult or unreliable to measure, such as the value of the data that a company holds.

Blockchain is a replacement for bookkeeping and reconciliation work and could, therefore, threaten the work of accountants in those areas, while adding strength to those focused on providing value elsewhere. For example, in due diligence in mergers and acquisitions, distributed consensus over key figures allows more time to be spent on judgemental areas and advice, and an overall faster process.

Implications of blockchain for auditors

In regards to an external audit, assessing a company's financial status would be less necessary if some or all of the transactions that underlie that status are visible on a blockchain. This would be a profound change in the way that audits work.

A blockchain solution, when combined with appropriate data analytics, could help with the transactional level assertions involved in an audit, and the auditor's skills would be better spent considering higher-level questions.

For example, auditing is not just checking the detail of whom a transaction was between and the monetary amount, but also how it is recorded and classified. If a transaction credits cash, is this outflow due to the cost of sales or expenses, or is it paying a creditor, or creating an asset?

These judgemental elements often require context that is not available to the general public, but instead require knowledge of the business, and with blockchain in place, the auditor will have more time to focus on these questions.

How can accountants lead with blockchain?

The move to a financial system with a significant blockchain element offers many opportunities for the accountancy profession. Accountants are seen as experts in recordkeeping, the application of complex rules, business logic and standards setting. They have the opportunity to guide and influence how blockchain is embedded and used in the future, and to develop blockchain-led solutions and services.

To become truly an integral part of the financial system, blockchain must be developed, standardised and optimised. This process is likely to take many years – it has already been nine years since bitcoin began operating and there is much work still to be done. There are many blockchain applications and start-ups in

this field, but there are very few that are beyond the proof of concept or pilot study stage. Accountants are already participating in the research, but there is more for the profession to do. Crafting regulation and standards to cover blockchain will be no small challenge, and leading accountancy firms and bodies can bring their expertise to that work.

Accountants can also work as advisors to companies considering joining a blockchain themselves, providing advice on weighing the costs and advantages of the new system. Accountants' mix of business and financial nous will position them as key advisors to companies approaching these new technologies looking for opportunity.

Skills for the future

The parts of accounting concerned with transactional assurance and carrying out transfer of property rights will be transformed by blockchain and smart contract approaches.

The reduction in the need for reconciliation and dispute management, combined with the increased certainty around rights and obligations, will allow greater focus on how to account for and consider the transactions, and enable an expansion in what areas can be accounted for. Many accounting department processes can be optimised through blockchain and other modern technologies, such as data analytics or machine learning. This will increase the efficiency and value of the accounting function.

As a result of the above, the spectrum of skills represented in accounting will change. Some work such as reconciliations and provenance assurance will be reduced or eliminated, while other areas such as technology, advisory, and other value-adding activities will expand.

To properly audit a company with significant blockchain-based transactions, the focus of the auditor will shift. There is little need to confirm the accuracy or existence of blockchain transactions with external sources, but there is still plenty of attention to pay to how those transactions are recorded and recognised in the financial statements, and how judgemental elements such as valuations are decided. In the long term, more records could move onto a blockchain, and auditors and regulators with access would be able to check transactions in real time and with certainty over the provenance of those transactions.

Accountants will not need to be engineers with detailed knowledge of how blockchain works. However, they will need to know how to advise on blockchain adoption and consider the impact of blockchain on their businesses and clients. They also need to be able to act as the bridge, having informed conversations with both technologists and business stakeholders. Accountants' skills will need to expand to include an understanding of the principle features and functions of blockchain. For example, blockchain already appears on the syllabus for the Institute of Chartered Accountants for England and Wales' (ICAEW's) ACA qualification.

VAT benefits of using blockchain

The potential of blockchain brings to mind applications for tracking indirect taxes such as VAT, GST, and sales taxes. These taxes often follow chains of transactions and their tax liabilities.

For instance, with VAT, where tax is assessed at each point where value is added for a service or product, tracking the entire chain of transactions would make it much easier to ensure accuracy and compliance. Tax obligations are often triggered by key events that need to be documented and recorded securely, such as the delivery of goods, conclusion of a contract, and the export and import of goods and services. Blockchain maintains a complete, tamper-free chain of transaction information, which makes it particularly appealing for tracking tax data.

However, determining the how, where, when, and what type of tax applies in any given situation depends on complex knowledge that must be applied correctly for every transaction. Collecting the correct amount of tax depends on accurate, real-time information and decisions. Tax errors, lack of data, and fraudulent activity can all have a significant impact on compliance and recovery. Blockchain provides a way for all applicable parties to have access to up-to-date, real-time information by ensuring all nodes have the same information at all times.

Real-time tax data is increasingly important as tax administrators around the world are demanding real-time information from businesses in order to assess and support their VAT and GST liabilities and deductions.

From a tax administrator's perspective, blockchain can greatly increase the speed, accuracy, and ease of collecting relevant tax data, thereby improving the quality of VAT and GST compliance while reducing the cost of enforcement.

From the business's perspective, blockchain can ensure higher rates of VAT recovery with less burden.

As blockchain becomes more prevalent and is applied in various arenas, it is important to consider how blockchain might impact VAT, specifically, including impacts to documentation. When it comes to VAT, the invoice is the most critical VAT document. A possible consequence of moving to blockchain is that a VAT invoice may require a digital fingerprint to be considered valid. Derived through the VAT blockchain consensus process, the fingerprint would immediately confirm the block under scrutiny is permanently linked to the previous and subsequent blocks in the chain. The entire history of the commercial chain could be followed and verified by anyone connected to an approved tax-auditing program.

Combating tax fraud and errors with blockchain

Because blockchains allow sensitive and valuable data to be transferred accurately and securely, it is not surprising that blockchain is becoming more commonly embedded in day-to-day business processes and being considered for tax applications across the world.

For example, blockchain provides transparency and traceability of all transactions by storing every detail of transaction history in blocks, making it easier to ensure all VAT data are accounted for, no matter how small the transaction might be. Data are validated by a consensus of trusted nodes, which means errors are likely to be detected and eradicated before they become a problem, and devices introducing errors lose their status as a trusted node.

Records cannot be tampered with or erased because they become part of the chain itself, which makes blockchain an ideal method for preventing tax fraud.

Blockchain has other useful features as well, such as:

- Communication can happen across multiple ledgers, helping to integrate all data;
- Blockchain offers user controls, meaning only identified users with appropriate user permissions have access to information, and this information is updated in real-time such that everyone with access has up-to-date information;
- As for efficiency and speed, when blockchain is set up with appropriately planned incentives for nodes, transaction speeds can be fast because the fastest devices on the network are rewarded for responding quickly.

In the long run, blockchain can be a driving factor in implementing real-time, automated tax processes that ensure compliance, maintain security and transparency, and ease the burden of tracking and reporting taxes.

This article was written by [Antonio Lanotte](#) for International Tax Review.

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