[Dr Imran Batada](https://www.thenews.com.pk/writer/dr-imran-batada)

December 2, 2020

**Blockchain for Pakistan**

Last year, Pakistan allowed the use of blockchain technology in the country, a step in the right direction. The decision was made to attract remittances from Malaysia. This resulted in a 13 percent increase in remittances in the first quarter. However, to understand how it will potentially impact different sectors of the country such as business, banking, and government, to name a few, it is best if we also understand how it works.

Blockchain has gained a huge following of late because of its use in cryptocurrencies. Several countries have allowed blockchain to operate in their borders including the United States, Canada, Australia, the United Kingdom, the European Union, Finland, Belgium, Cyprus, and Germany.

Blockchain technology revolves around its use of blocks. These serve as storage spaces for information, and when they are full, they connect to the previous block, eventually forming a chain as more blocks are filled. This chain is what it gives the actions a certain permanence that cannot be changed, or else you risk detection.

Each block contains a hash. These are like fingerprints, and just like fingerprints, they are unique to every block. Additionally, every block also holds the hash of the block before it. That is why, if any changes were made to a block, the block that comes after it would know because the hash of the changed block will also change.

Aside from security, other advantages of using blockchain include improved tracing ability, transparency, and improved efficiency. Taking these into consideration, it is evident that the integration of blockchain technology can be advantageous to a country like Pakistan.

Blockchain can play a major role in resolving Pakistan’s healthcare-related issues. For the matter, it is necessary for the government to be proactive like countries such as the UK, US, Canada, Estonia, Russia, and France that have given citizens the power to control the delivery of their healthcare. As a result, information is accessed at a better pace and, therefore, authorities are in a better position to identify where services are needed the most.

Optimistically, blockchain can give Pakistanis more control over their health records which could directly affect the delivery of the system. Blockchain technology simplifies the supply chain and administrative processes in healthcare. It can prove instrumental in streamlining prior authorization, which may decrease costs. Blockchain also allows hospitals to locate inaccurate information faster than they would on their own, and the potential risks of being cyberattacked are minimal.

Blockchain technology has the potential to provide secure storage for the government, citizens, and business data. It can facilitate the government by providing an official registry for public and private assets. The digital identity mechanism empowered by blockchain can provide a comprehensive national database, storing personal information of each citizen such as birth certificate details, marriage licences, driving licences, and passport information. Furthermore, by simplifying the data management mechanism with regard to public services, it brings significant reduction in labor-intensive processes. Moreover, it not only reduces excessive costs but also instills fool-proof mechanisms of accountability. Blockchain also provides a platform to carry secure property transactions by registering property titles.

In recent times, we have seen the government come up with different philanthropic schemes for underprivileged people. Prime Minister Imran Khan unveiled a multi-billion-rupee economic package for pandemic-affected citizens. Such projects demand high levels of transparency which can possibly be attained with the help of blockchain.

Blockchain holds the potential to improve the way agencies handle their most sensitive data. The greater level of security ensures an increased level of public trust and their cooperation with the justice system. Blockchain technology also takes away the possibility of vote buying and intimidation which normally happen just outside voting precincts or booths. It also enhances voter security multiple folds by eliminating the need to come out of the home to cast a vote. Moreover, tampering and fraud are less likely to happen. The mechanisms devised by blockchain are secure and interfering with the data is extremely difficult given the limited time available for each block. This system has been in place in countries such as India, and has shown significant improvement in their voting process.

As early as last year, the banking industry already felt the impact of blockchain technology with the remittances that the country was receiving. This impact can be taken further. On most occasions, transactions done online take between one and three working days. According to Santander, a Europe-based banking institution, these delays cost the banking industry a significant amount of $15 billion-$20 billion.

The two major reasons for this delay are, firstly, banks’ working business hours, and the volume of transactions that needs to be accommodated. Blockchain easily solves this because it does not stop. It continues working 24 hours a day, seven days a week, regardless of the volume that needs to be attended.

Several countries are in the process of exploring blockchain as a viable option for payment. Countries like Singapore and South Korea are at the forefront of this initiative while England, China, and Canada are also in the line.

Most transactions, regardless of which industry it is, require a middleman to broker the deals offered on both sides. They act as a non-biased party to mediate the transaction for both sides that will be fair for both as well. However, this normally costs both parties more than they should, and for a still developing country such as Pakistan, to incur that added cost is detrimental to development especially when there is a way around this.

Blockchain technology can be your middleman without the added cost. With its implementation, an individual or a company trying to broker a deal can have access to all the information. However, this also means that the second party should also have integrated blockchain into their system. Otherwise, the whole point is moot.

In addition, it can also cut the time required to gather the approval of all parties involved. Blockchain uses a peer-to-peer system where authorized individuals need to sign off any transaction that goes into the blockchain, cutting down the time which would have been used to go to every person, one by one, for their approval. This shows how efficient the integration of blockchain is in negotiating business contracts or deals.

Developed countries such as the US, China, and the UK have been using blockchain for international trade. They do so because this technology makes the ledgers of other countries, or even companies they are trading with, more transparent and available so that countries will know what they are walking into.

Developed countries such as China, Singapore, and South Korea have already received great benefits in using cryptocurrency as a mode of payment. It has also encouraged investors to look into the possibility of putting in more money in the operations of these countries.

Having the government discuss how to regulate this is a good step forward for Pakistan as this can be a means for them to decrease the poverty rate of the country. In return, the fewer impoverished people a country has, the more likely they are able to pay taxes which Pakistan needs in order to meet the requirements put forth by the International Monetary Fund.

Blockchain has emerged as an important technological development that has the potential to resolve global issues. It is a high time Pakistan started making the most of this new technology. Blockchain can prove critical in improving the economic system of the country. Regulation of both blockchain and cryptocurrency should be devised and proper implementation should be exercised.

Twitter: @imranbatada

The writer is Director of the Centre for Information and Communication Technology at IBA.