

USING RIPPLE (XRP) AS A PAYMENT TOOL IN BOOKING.COM

Blockchain is the technology behind cryptocurrencies. All the network is connected to the blockchain and so can access to all the information on it. Lots of people are predicting a very nice future for blockchain because of its promise of security. It doesn't keep your info in one data server but it's spread everywhere in the server and thus impossible to hack.

Cryptocurrencies have been growing very fast because more and more people are interested and trust in decentralized currency. The total market capitalization (market cap) of cryptocurrencies reached to limit of \$800 billion in the first days of 2018, and recently it is around \$120 billion. One of the most popular and using cryptocurrency is Ripple (XPR). If it comes to how it works, a sender specifies the amount and currency the recipient should receive and automatically converts the sender's available currencies using the distributed order books integrated into the Ripple protocol. Independent third parties acting as market makers provide liquidity in these order books.

Ripple is basic infrastructure that optimizes the payment process. It is a neutral Internet-based protocol for connecting banks and payment systems. Banks can use Ripple as a common ledger to clear and settle transactions in real-time at the lowest-possible cost.

In our business problem, we focus on the new strategy that booking.com can use in order to test XRP as a payment tool. In its strategy, booking.com believes that XRP will be used commonly as an instrument of payment. Furthermore, they think that XRP makes their process fast, safe and profitable.

If we go into the detail of process, booking.com wants to take their payments denominated in XRP for next 3 days in order to measure its effect on their profitability. Therefore, booking.com forecasts next 3-days of XRP/USD price in order to specify this ratio and convert it properly. According to result, they will decide whether to use XRP as an instrument of payment in long term. So, we used forecast techniques to measure XRP/USD parity.

- We used Holt, Holt-Winters, Simple Exponential Smoothing, Moving Average forecast techniques.
- Forecast is made for the 17.01.2019 first. Then, forecast is made again including dataset and 17.01.2019 for the 18.01.2019. Finally, we forecast 19.01.2019 by including 2 days and the dataset.
- We select the forecast technique with the minimum error.
- It's observed that Holt-Winter is acceptable for the first day and Holt method for the next 2 days.
- We find the result as 0.3207\$ for 17.01.2019. Then, 0.3109\$ for 18.01.2019. Finally, 0.2918\$ for 19.01.2019.
- It's observed that there is going to be a decline in XRP/USD.
- There is a high volatility in cryptocurrency market.

After the evaluating the consequences of the dataset, booking.com will decide whether using XRP as payment tool in their ongoing operations. As we mentioned above, XRP will provide fast and safe process for customers to pay their fees. On the other hand, the negative side of using XRP could be its volatility. Managers of booking.com should consider those consequences before they implement XRP as a payment option. However, if it's profitable and reasonable both for customer and firm, there is no doubt to adopt XRP payment option in its operations.