ABSTRACT

In 2020-2021 where the world experienced a Covid-19 pandemic, the price of Bitcoin increased and there was a fairly high price spike at the turn of the year 2020-2021 and had touched an all time high (ATH) at the end of 2021. Bitcoin is one of the currencies crypto that is volatile when compared to the exchange rates of widely used currencies. In addition, Bitcoin price movements are difficult to predict.

The samples used are Euro, Pound Sterling, Yuan, Yen, Ruble, Franc, and Bitcoin. The data used is in the form of Bitcoin price data and some of these currencies in 2020-2021. This study aims to find the relationship between volatility with Bitcoin trading volume, return with Bitcoin trading volume, and return with Bitcoin volatility for forecasting purposes. The research method used is the Augmented Dickey-Fuller (ADF) stationarity test, then using the ARMA model after that using the EGARCH model to find the relationship.

The results of this study indicate that there is a positive relationship between volatility and Bitcoin trading volume. Just like the return and trading volume of Bitcoin there is a positive relationship. However, Bitcoin returns and volatility have a negative relationship.

Keywords: Volatility, Volume, Returns, Bitcoin, Cryptocurrency, GARCH