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**Financial News Headlines Data**

**Problem Statement:**

* There are many news in are spread all over social media platforms, financial news websites, and news agencies websites. All these headlines about companies affect the stock prices but it’s not clear how this news affects the prices in the short or long run. Therefore, we are looking for the correlation between news headlines and changes in stocks prices.

**Goal:**

* To create a model that predicts stock prices depending on news headlines and tweets sentiments.
* To measure the impact of the news headlines (sentiment) on directing the stock market.

**Project Description:**

* This report/research tries to find the relation between the sentiment of news headlines and tweets and stock prices by determining all factors that may affect the stock prices in the short and long term.
* Is it possible to build a model that accurately predicts stock prices depending solely on the sentiment of financial news headlines/tweets? Or should we include the different types of news headlines that cover all factors that affect stock prices? (Nature and weather news, political news, cultural news, ... etc.).

**Model Data Inputs:**

* Date
* Time / Periods (of news/tweets)
* News Headlines
* Tweets
* Sentiment
* Prices (change in the price depending on the sentiment)
* Stock (company, geographical location, industry)

**Model Features:**

* Correlation between news headlines and stock prices.
* Accurate (Depends on the model & the application)
* The model needs to be used for a different financial market, not the USA market only, the main issue is to have data that can predict the changes.
* Analyze the behavior (sentiment) of all users (not only the behavior of the American users).
* Short and long-term prediction.

**Questions:**

* What is the impact of the frequency of financial news headlines?
* What is the effect of Quarterly financial reports on stock prices?
* Is there a relation between timely news and stock prices?
* How many sources do we have for financial news?
* Does news (other than financial) affect the stock prices?
* Can stock prices be predicted in the short and long-term depending on the news headlines?
* Which comes first (news, sentiment then change in the price) Or (change in the price in the major/most important stocks then news spread)?
* What is the relation between the investor type (investment strategy used) and stock prices?
* What are micro and macro reasons/causes of a change in the stock prices
* Do news headlines have the same effect/impact on all users in the different geographical areas? (The way users deal with the news; does it differ from one location to another?)
* Are there cultural differences in dealing with the news?
* Can stock prices be predicted depending on sentiments? (Can a mathematical model be used to predict stock prices?
* What are the different sources of news?
* What is the impact of the source of the news on the stock prices (if it is a governmental statement, or a company and industry news, or gossip) (Effect of news types (such as noise news) on the stock price)?
* Does the news have the same effect on all users/stocks? (Bad news for some, good news for others).
* Which industries are more (sensitive to/stable against) news? (What is the relation between the news and stock prices in a certain industry/sector?)
* Is there a relation between the way (medium) and speed of news (how the news is transmitted) (using tweets, conferences, web...etc.) and stock prices?
* Do seasonal trends affect stock prices?
* What is the effect of market makers (setter) on changing stock prices? (Impact of the market makers as the source of the news).

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