Sentimental Analysis on Forex Market

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Abstract
Sentiment analysis in the forex market is all about understanding how traders feel about a particular currency or the overall market. This perception can influence price movements, so traders use sentiment analysis to gauge market direction and identify potential entry and exit points for their trades. Common tools for this include reports on commercial and non-commercial positions (like the Commitment of Traders report), broker sentiment indicators, and even social media analysis. By understanding where the crowd is leaning, traders can make more informed decisions about their own positions.

Introduction

Market sentiment refers to how investors collectively feel about a specific market or financial instrument. As traders, we observe that sentiment becomes more positive when the general market consensus leans toward optimism. Conversely, if market participants develop a negative attitude, sentiment turns bearish. Here are the key points:

Bullish Market Sentiment: In a bullish market, asset prices are on the rise. Traders perceive positive sentiment, leading to upward price movements.

Bearish Market Sentiment: In a bearish market, asset prices decline. Negative sentiment prevails, causing prices to fall.

Forex Sentimental Analysis

Forex sentiment analysis involves identifying the positioning of traders-whether they are net long (buyers) or net short (sellers)-to influence your own trading decisions in the currency market. Here's how it works:

Understanding Trader Positioning

Traders' positions can significantly impact market dynamics. Contrarian investors pay attention to crowd sentiment. They look for opportunities to take positions opposite to prevailing sentiment.

Example: GBP/USD Movement

In 2016, GBP/USD experienced a significant drop due to negative sentiment following Britain's vote to leave the European Union.

After a year of broadly positive sentiment, negativity returned in 2018 before prices started trending higher in 2019.

EUR/GBP Net Short Sentiment

In the EUR/GBP chart, 21.9% of traders were net long, with a short-to-long ratio of 3.58 to 1. Rising sentiment may indicate fewer traders left to push the trend higher, while declining sentiment could signal a potential reversal.

Research Objectives

- To analyse the forex market sentiment analysis, which the most important news that affecting the currency pair.
- Most volatile traded currency pairs.
- And other few sentiments which affect the forex market.

Review of Literature

"Sentiment Analysis in Forex Market Using News Articles" (Zhang et al., 2018): This study employs machine learning techniques to analyze sentiment from news articles and its impact on forex market movements. The researchers use a sentiment lexicon and a Support Vector Machine (SVM) classifier to extract sentiment from news data. Their findings suggest that sentiment analysis can provide valuable insights for forex trading strategies.

"Sentiment Analysis of Forex News Articles for Prediction of Exchange Rate Movements" (Poria et al., 2014): In this research, the authors explore the correlation between sentiment extracted from forex news articles and exchange rate movements. They employ natural language processing (NLP) techniques and sentiment analysis algorithms to analyze news sentiment and predict forex market trends. The study demonstrates the effectiveness of sentiment analysis in predicting short-term exchange rate movements.

"Sentiment Analysis of Forex Tweets" (Bollen et al., 2011): Bollen et al. analyze the sentiment of tweets related to the forex market to assess its impact on market movements. They use Twitter data and sentiment analysis algorithms to measure the mood of traders and investors. The study finds that sentiment extracted from tweets can act as a leading indicator for forex market trends.

"Sentiment Analysis in Forex Market: A Hybrid Approach" (Sarker et al., 2019): This research proposes a hybrid approach combining lexicon-based sentiment analysis and machine learning techniques to analyze sentiment in the forex market. The authors utilize sentiment lexicons and a long short-term memory (LSTM) neural network to extract sentiment from forex news data. Their findings indicate that the hybrid approach outperforms individual methods in sentiment analysis for forex trading.

"Sentiment Analysis in Forex Trading: Exploring Predictive Power of Twitter Feeds" (García et al., 2015): García et al. investigate the predictive power of sentiment extracted from Twitter feeds for forex trading. They employ sentiment analysis techniques to analyze the sentiment of tweets related to the forex market and assess its impact on exchange rate movements. The study suggests that sentiment analysis of Twitter feeds can provide valuable insights for forex trading strategies.

Research Methodology

The research methodology employed for investigating "Sentimental Analysis on Forex Market" involved a mixed-methods approach to gather comprehensive insights into the sentiment analysis landscape within the forex market. A combination of quantitative and qualitative techniques was utilized to analyze the sentiment data effectively. Initially, a questionnaire survey was conducted to collect responses from 38 participants with varying backgrounds in forex trading. The questionnaire comprised both closed-ended and open-ended questions, addressing demographic information, familiarity with sentiment analysis, usage of sentiment analysis tools, perceived effectiveness of sentiment analysis, and overall satisfaction with its application in forex trading. Quantitative analysis of the survey data involved statistical techniques such as descriptive statistics

to summarize responses and inferential statistics to examine relationships between variables. Additionally, qualitative analysis was performed on open-ended responses to extract nuanced insights and identify recurring themes regarding challenges, limitations, and recommendations for sentiment analysis in the forex market. The triangulation of quantitative and qualitative data provided a comprehensive understanding of sentiment analysis in the forex market, facilitating the formulation of meaningful conclusions and recommendations for future research and practical applications.

Interpreting responses to questions about the most volatile currency pairs and the sentiment news affecting the forex market could provide insights into traders' perceptions and strategies. Here's how you could interpret these responses:

Most Volatile Currency Pairs
Response Distribution: The response diagram would illustrate the distribution of respondents' choices for the most volatile currency pairs. It would highlight which currency pairs are perceived as the most volatile among traders.

Insights: The most frequently chosen currency pairs could indicate the pairs that traders actively monitor and trade due to their high volatility. It would reflect traders' awareness of market dynamics and their preferences in selecting currency pairs for trading.

Sentiment News Affecting the Forex Market
Types of Sentiment News: The diagram would categorize respondents' mentions of sentiment news affecting the forex market into various types, such as economic indicators (e.g., GDP, inflation), geopolitical events (e.g., elections, conflicts), central bank announcements (e.g., interest rate decisions), and market sentiment indicators (e.g., sentiment surveys, social media sentiment).

Insights: The analysis would reveal which types of sentiment news traders consider most impactful on the forex market. It would help identify the key drivers of sentiment and market movements, guiding traders in monitoring and reacting to relevant news events effectively.

Data Interpretation
In the research I have collected 38 sample from the population and we are focusing on the two important objective and we going to interpret the sample.

Sample Size
- You collected responses from 38 participants.
- Currency Pairs and Votes:
- USD/SEK (US Dollar vs. Swedish Krona) received the highest number of votes, with 27 participants (71.1%) considering it the most volatile.
- AUD/JPY (Australian Dollar vs. Japanese Yen) and USD/EURO (US Dollar vs. Euro) each received 5 votes (13.2%).

Interpretation
The overwhelming majority of participants believe that USD/SEK exhibits the highest volatility among the mentioned currency pairs.

AUD/JPY and USD/EURO are also considered volatile but to a lesser extent.

Implications
Traders and investors should pay attention to these currency pairs when making trading decisions.

Volatility can present both opportunities and risks, so risk management strategies are crucial

USD/SEK is Most Volatile in Forex Market Because

Liquidity: One of the primary factors influencing volatility is liquidity. Liquidity refers to the amount of supply and demand in the market. The rule of thumb is that higher liquidity leads to lower volatility, and vice versa. Exotic currency pairs like USD/SEK tend to be more volatile because their liquidity is often lower compared to major pairs.

Exotic Nature: USD/SEK falls into the category of exotic currency pairs. Exotic pairs involve currencies from smaller or less economically stable countries. These pairs are less commonly traded, resulting in thinner markets and higher volatility. Traders often seek exotic pairs for potential profit opportunities but must also manage the associated risks.

Economic Factors: The volatility of USD/SEK can also be influenced by economic data releases and events specific to the United States and Sweden. Major economic announcements, central bank decisions, and geopolitical developments can trigger sharp movements in the exchange rate.

For which Sentiment News Forex Market will Affect More
Sample Size
- You collected responses from 38 participants.
- News Sentiments and Votes:
- FED News: 68.4% of participants believe that FED news significantly affects the Forex market.
- Unemployment News and GDP Rate: 15.8% of participants consider unemployment news and GDP rate as influential factors.

Interpretation
The majority of participants recognize the importance of FED news in shaping currency movements.

Unemployment news and GDP rate are also relevant, albeit to a lesser extent.

Implications
Traders should closely monitor central bank announcements (such as FED decisions), employment data, and economic growth indicators.

Understanding the impact of news sentiment can help traders make informed decisions.

Why Fed News Affecting More
FOMC and Interest Rates
The Federal Open Market Committee (FOMC), a key component of the Fed, meets periodically to set the Fed Funds Rate and assess the state of the economy.

The Fed Funds Rate is the overnight rate at which financial institutions borrow and lend to each other to meet reserve requirements.

Although seemingly small, this rate serves as a benchmark across the entire US and global bond markets.

Influence on Interest Rates
The FOMC's decisions directly impact US interest rates, starting from the US Treasury market and extending to consumer rates (credit cards, car loans, mortgages).

While the Fed primarily affects short-term rates (e.g., 1-month Treasury Bills), its influence extends to longer-term rates (e.g., 10-year Treasury Notes).

Volatility and Forex Markets
Forex markets can be volatile around FOMC events due to the influence of interest rate markets on exchange rates.

Theoretically, when one region (e.g., the US) raises interest rates, international investors seek higher yields on bonds denominated in that region's currency (e.g., USD).

This flow of investments can boost the value of the USD against other currencies.

Conclusion

In conclusion, my research on sentiment analysis in the Forex market highlights its significance for traders. By understanding market mood, identifying reversals, and uncovering hidden opportunities, sentiment analysis complements technical and fundamental analyses. Traders should stay informed and adapt their strategies based on changing sentiment.

Regarding the most volatile currency pair, the data from 38 participants indicates that USD/SEK stands out as the most volatile, with 71.1% of votes. Traders should closely monitor this pair. While AUD/JPY and USD/EURO are also volatile, they received fewer votes.

Furthermore, considering the impact of news, FED news dominates with 68.4% of votes. Understanding central bank decisions is crucial. Meanwhile, unemployment news and GDP rate play a smaller role.