Tuning in to the Emotions of the Capital Markets with Sentiment Analysis

Abstract

It is crucial for firms operating in financial markets to understand investor needs, customer preferences, and society perspectives. Digital innovations and social media proliferation are adding another dimension to the study of customer behavior and the emotional views of other stakeholders. The emerging trend of analyzing the sentiments of customer and investor groups offers another tool to predict and identify needs and define and refine products so they meet expressed or latent customer expectations.

Emerging Trends in the Capital Markets Industry

The capital markets industry has historically relied on the estimations and benchmarks of regulators and key financial intermediaries to feed its analytical models. They use traditional data points such as stock price movements, dividend payouts, and balance sheet ratios combined with market forecasts and economic indicators. However, key stakeholders such as potential and existing clients, investors, and analysts are influenced by qualitative information as well. They listen to their peers, colleagues, and persuasive voices in the industry. This makes conventional models unreliable.

The capital markets industry is now tapping into the stream of opinions on the internet to understand the prevailing market sentiment. Organizations are realizing the potential impact of this 'digital chatter' on their brand and business. Information scientists are being commissioned to capture and integrate this massive digital dataset that comprises of social media newsfeeds, blogs, and online forums, with the traditional datasets. Accessing, monitoring, and analyzing this data provides valuable inferences that are relevant to business functions, such as research, operations, and sales. The successful programs are able to produce more robust inferences.

Behavioral finance, the study of emotion driven financial decisions, is interesting to the capital markets industry. Historically, market timing and pick-up decisions of professional investors are based on close observations of the subtle signs emitted from different emotive reactions of the wider ordinary investor community. Professional investors and financial intermediaries can generate valuable insights by combining sentiment analysis and behavioral finance. These insights can help exploit the opportunities from market inefficiencies.

Using Sentiment Analysis

Sentiment analysis is a process by which public opinion is scanned to determine whether the attitudes to a particular topic are positive, negative, or neutral. It can play a pivotal role across the capital market value chain, from investment decision to performance analysis. By understanding the needs of customers and their satisfaction with products, the process allows firms to improve their products. If used correctly, sentiment analysis helps reinforce positive opinions and neutralize negative opinions before they become public.

The concept of sentiment analysis is still in its infancy. While practical models already exist, developers and users have a lot to learn. The process of using data points from online channels is still evolving, but the key steps are:

1.Define context universe

Create and prioritize a baseline of reliable information sources, and map these sources and corresponding data capture frequencies.

2.Set parameters

Define keywords, frequencies of sources, and other considerations of your data set.

3.Customize to the domain

Apply domain synthesis and custom logic and capture data from defined sources.

4.Analyze data

Deduce identifiable patterns, assign relative weightage and priority, and use sentiment analysis algorithms to analyze what has been captured and derive the outcome.
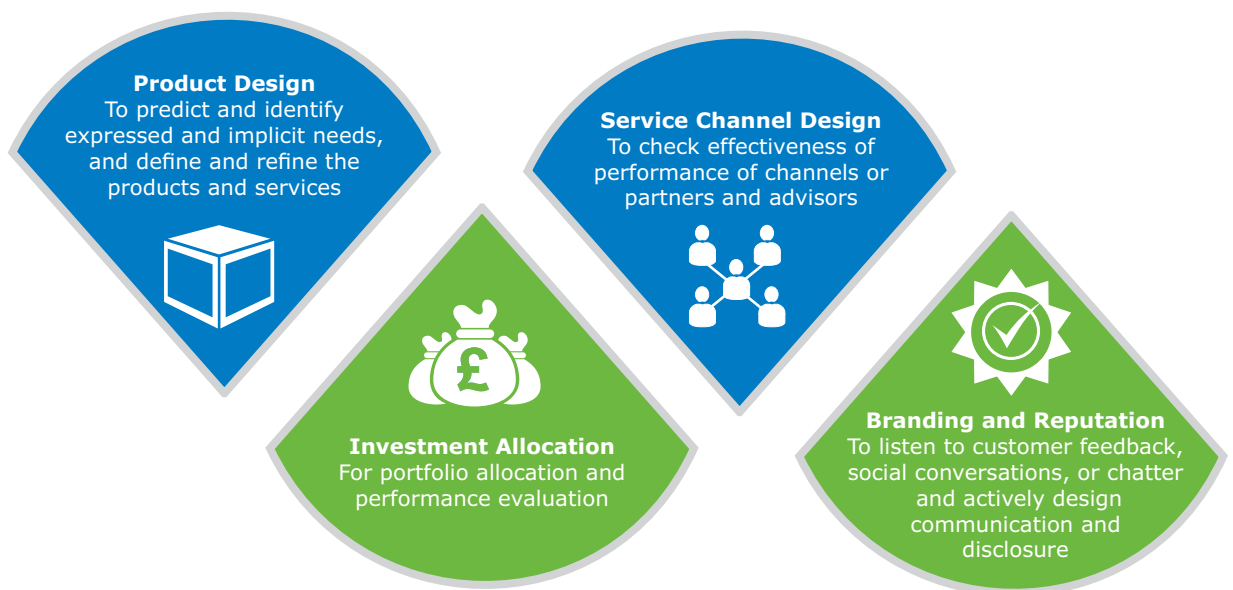
5.Present the results

Showcase inferences and results in a pre-defined format.

How the Capital Markets Industry Can Use Sentiment Analysis

Like fundamental analysis or technical analysis, sentiment analysis may soon be used as a decision tool for investments. Social media creates a deeper level of personalization and builds loyalty among clients. To benefit from this trend, many firms are encouraging financial advisors to use social channels for customer engagement. The training involved may make this a longer-term objective. In the interim, listening in to social media feeds to understand the issues faced by clients is a good idea. 'Real-time' social data in the form of customers' family situation, business interests, passions, behavior patterns and decisions, along with data from other systems, such as CRM and ERP, provide a deeper understanding of customers. The opportunity lies in the ability to identify an emerging need from social activity, and demographic data, and follow it up with timely products and services.

Sentiment analysis has other applications in several segments of the capital markets industry including financial exchanges, brokers and traders, issuers, investors, and asset and wealth managers.

Product Design
To predict and identify expressed and implicit needs, and define and refine the products and services

Service Channel Design
To check effectiveness of performance of channels or partners and advisors

Investment Allocation
For portfolio allocation and performance evaluation

Branding and Reputation
To listen to customer feedback, social conversations, or chatter and actively design communication and disclosure

Caption: Applications of Sentiment Analysis

Asset managers, like Tashtego Hedge Fund, have used Twitter based analysis to pick stocks for their funds.[1]

The Future of Sentiment Analysis

Innovative applications of sentiment analysis already exist. Exchanges have used it for online media monitoring, including stock specific recommendations from various online financial sources as well as rumors affecting markets. Banks have, in some cases, used sentiment analysis to understand the response to a new product or even to decide the locations of their new branches.

As digitization and social media evolve, so will the products and processes for sentiment analysis. A lot of research is being done and a variety of products have been launched; however, only a handful will be successful. The winners are likely to offer the ability to connect to multiple data sources and provide analysis based on very specific contexts and parameters. The capability to highlight issues facing customers, generate leads for customer acquisition, and use natural language processing for multiple languages will also be immensely helpful.

What Companies Should Know Before Implementing Sentiment Analysis

Sentiment analysis provides innovative ways to listen to users and improve products and services, but there are a few challenges in its implementation.

Financial regulators are currently developing comprehensive guidelines in this space. The general nature of these guidelines and privacy issues may force the financial industry to be cautious about listening into social media. Mismanagement of social media data can expose firms to reputational risks. Management and effective resolution of customer complaints on social media need expert handling.

Sentiment analysis is still evolving and the financial industry is careful about investing in product license costs and programs centered on sentiment analysis. For global organizations, the analysis tools need to be equipped to handle multiple languages and dialects, which has cost implications. The success of the practice hinges on removing noise around important messages. The tools used should be intelligent enough to understand the overall context of the analysis and filter non-relevant data points.

Identifying the right data sources is a key challenge for users and solution providers alike. A large part of the success of sentiment analysis projects depends upon identification of the right context and data sources.

Conclusion

Capital markets need to consider and capture the opinions of individuals and digital communities that discuss their products or services. The insights generated can be used to improve their brand, understand customer needs, predict market behavior, and anticipate key trends.

Capital market firms need to work on incorporating insights produced from sentiment analysis to retain clients and create profits. At this point, it is most useful in generating sales leads and understanding how the market feels about certain products. Sentiment analysis is a useful tool that helps connect the organization with the landscape they operate in and better understand stakeholders they deal with. As it develops, the industry will find innovative ways to apply it to more business scenarios and provide greater value to users.

References

[1] The Wall Street Journal, Firms Analyze Tweets to Gauge Stock Sentiment, July 06, 2015, accessed January 15, 2016, http://www.wsj.com/articles/tweets-givebirds-eye-view-of-stocks-1436128047

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