SOCIAL MEDIA SENTIMENT ANALYSIS FOR MAKING BANK LOAN DECISIONS

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ABSTRACT

As an important source of external financing, bank loans play a big role in corporate financing. The importance of bank loans attracts lots of researchers to investigate the determinants of bank loan contracting. Recent development in information technology, such as social networks, has attracted a number of research interests. Social media platforms provide a feasible way for investors to bypass the shortcomings of traditional approaches, and reduce information inequities during the loan contacting decision. For instance, social media sites such as Google Finance, Yahoo Finance and Seeking Alpha allow firms to complement traditional dissemination channels by pushing the information to lenders simultaneously via postings, direct message et.al. More importantly, social media communications are bi-directional which enable direct and immediate interaction among users. With social media sites, users, lenders, analysts are able to produce and share value-relevant information more efficiently than before. Analysis on targeted social media sites will reduce the time and cost that lenders spend in filtering various news sources and help lenders to make business decisions.

Considering the huge amount of users on social media, user generated information can provide a source of value-relevant advice to other stakeholders. Many studies have found that the sentiment in large amount of postings is an important indicator of borrower's potential risks and values. Since borrower's risks are positively associated with bank loan prices, we believe that there is a potential link between information from social media and bank loan price. This research will focus on the manner in which social media sentiment affects various features of loan contracts, which leads to two research questions of this study: 1) Do social media sentiment affect bank loan price? 2) How social media sentiment affect bank loan price?

By using samples from U.S. bank loan contracts, this study provides evidences that user generated content on social media is an important determinant of bank loan contract features. We find that: 1) borrowers that receive positive social media user opinion on social media enjoy more favorable price; 2) the relations between social media sentiment and bank loan price vary with the firm size and loan structure. The results suggest that the effect of social media sentiment on bank loan prices is stronger for small firms than for large firms, in addition, the effect of social media sentiment on bank loan prices is stronger for syndicated loans than for sole-owner loans.

Overall, this study confirms the view that social media will help lenders reduce cost of bank loans and business risks by decreasing information asymmetry between borrowers and lenders.

Keywords: Social Media, Sentiment Analysis, Information Asymmetry, Bank Loan