

ABSTRACT

In the credit acceptance process, the financial institutions analyze the borrowers' creditworthiness through their demographic data based on the 5C principle; character, capacity, conditions, capital, and collateral. However, the legacy credit scoring methods have drawbacks, including not having an excellent credit reputation as it is limited to the structural nature of demographic data. We construct a credit scoring model by combining the demographic element and adding two social media elements; content and network. The content considers creditworthiness by assessing borrowers' posts, which consist of opinions and conversations on social media. In comparison, the network considers borrowers' connectivity to their social community. The paper proposes a new credit scoring model better to represent the quality of borrowers' characteristics and behavior. The data is collected from LinkedIn, which is suitable to represent the professional network. The proposed model has been verified through expert judgment, including the credit providers, and has been simulated through a machine learning approach to automate credit acceptance decisions.

Key Words: Expert Judgment, Social Media, Creditworthiness, Credit Scoring, Prediction Analysis