

Abstract— The evolving landscape of credit scoring presents increasingly complex challenges in accurately assessing financial risk in the digital era. The complexity in credit scoring has escalated, driven by evolving industry needs and shifting digital demographics. Traditional credit scoring methods are challenged by the growing diversity in financial behaviors and the increasing number of individuals with limited or no credit history. Our model addresses these complexities by applying the '3Cs' of credit scoring: Capacity, Character, and Conditions. Capacity is assessed using demographic data, offering insights into financial stability. Character is evaluated through user activity, providing a deeper understanding of individual behaviors. Conditions are discerned from network data, reflecting broader economic influences. Our approach aids financial institutions in exploring new markets by offering insights into individuals with limited credit histories. Our model addresses the evolving landscape of credit risk assessment, enhances financial inclusivity, and facilitates more accurate risk evaluations and informed credit decisions.