On hindrances to financial inclusion in microcredit sector

Constrained access to microcredit continues to be easily the biggest challenge affecting Small and Medium size Enterprises (SMEs). Due to limited capital, the vast majority of SMEs rely on micro credit financing – the offering of small loans to small entrepreneurs who can't get big bank loans to grow their businesses.

In order to access credit, lenders normally evaluate the "credit-worthiness" of SMEs through the lens of the traditional credit scoring models via "the 5Cs of credit": Capital, Collateral, Conditions, Character and Capacity. A borrower must score highly on each, if not all the five boxes of the credit score card. Many SMEs, however, struggle to match up their better-placed competitors in this microfinancing sector and end up sidelined by the traditional scorecard.

The recent integration of Artificial Intelligence (AI) tools in the credit scoring systems of Ugandan banks and other microcredit institutions was a good solution, but is inadvertently widening pre-existing financial inclusion gaps among microcredit beneficiaries: Researchers have spotted emerg-

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ing ethical concerns regarding the AI tools used by lenders being programmed with biased data that is not sensitive to the socio-economic context of needs of local borrowers.

Unless these bottlenecks are addressed by policymakers and the financing institutions to allow for equitable financing, the welfare and future of SMEs remains in jeopardy; and so do the lives of the millions they employ.

A study by the World Bank established that SMEs account for "90 percent of all businesses and accounting for more than half of global employment. For developing coun-tries such as Uganda, SMEs are an economic backbone. They provide employment and thus sustenance to many households.

A joint 2024 report by MasterCard Foundation and the Ministry of Trade, Industry and Cooperatives reveals that SMEs "employ over 2.5 million people and make up 90 percent of private sector production. They generate 80 percent of manufactured output— accounting for 20 percent of GDP."

Ugandan AI Junior researcher Emmanuel Isabirye, alongside Daphne Nyachaki Bitalo, explore this economic and ethical dilemma faced by both benefactors and SMEs through a fresh study titled "Contextualising AI ethics in Uganda through adaptive sensitive reweighting (ASR) for equitable microcredit.

Published in the *AI In Society* academic journal, an Oxford University Press publication, the study argues that traditional credit scoring methods "discriminate against marginalised groups because they are based on formal financial records, reinforcing structural disadvantages."

Isabirye proposes the development and implementation of an "Adaptive Sensitive Reweighting (ASR)" credit score model in the Uganda microfinance sector.

He says this will "mitigate algorithmic bias", a term he uses to mean unfair decisions computer applications or AI tools make because the data they learned from the given financial institution was already unfair or incomplete. The researcher believes the ASR model will enhance financial inclusion in Uganda's microfinance sector: more SMEs and individuals will be able to access credit more equitably.

The ASR approach "adaptively adjusts weights for sensitive features such as collateral values and transaction history during model training to enhance fairness."

During the study, when the researchers tested the ASR approach on real credit-score data against 80 sample stakeholders, it let 15 percent more poor or disadvantaged people get loans, while still correctly predicting who would pay back just as well as before. The ASR was much fairer overall.

While the integration of AI in the microfinance sector of Uganda promises great strides toward financial inclusion, there is need to address the ethical concerns that arise in its deployment at the risk of economically stifling the very people it's meant to serve.

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