Study shows why decentralized platforms backslide

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For decentralized platforms to stay autonomous, such as cryptocurrencies, creators and proponents must overcome a range of specific challenges, according to new research from The University of Texas at Austin.

Communities looking for freedom from regulation are rallying around alternatives to established banking systems, social media platforms and search companies such as Facebook and Google—but many struggle. Understanding the common pitfalls of decentralization may make these platforms more resilient.

"They're supposed to be more egalitarian and democratic, but you often end up with power in the hands of a few individuals or institutions," said Michael Sockin, an assistant professor of finance in the McCombs School of Business who led the study. "We're raising some issues that we think creators and the community haven't fully thought about."

The research is published in *The Journal of Finance*.

With Wei Xiong of Princeton University, Sockin modeled one kind of platform, known as a decentralized autonomous organization (DAO). It works like this:

- Instead of raising money from investors, it sells tokens to its users.
- Tokens entitle them to services from the DAO and to a vote on its policies.
- To be transparent, every transaction gets recorded on a blockchain.

On one successful DAO, Filecoin, the service is data storage. Users exchange tokens to rent storage space from other users, as alternatives to cloud companies such as Amazon.

The researchers modeled how DAOs evolve over time, comparing them with centralized platforms with investors. They found several lessons for what works and what does not.

They first found that small is beautiful. Selling tokens works best for small groups that are passionate about a specific purpose. Such DAOs have formed for targeted goals like buying digital art or raising aid money for Ukraine. But recruiting more users risks pulling in people who are less committed and less likely to contribute services.

"It's like a neighborhood association," Sockin said. "If not enough people are willing to help to fix the fences, the community doesn't do well."

The study also found that decentralization is economically fragile. Centralized platforms are more likely to survive an economic downturn, because big investors can put in more money.

And finally, tokens draw speculators. A problem arises when a DAO allows users to buy and sell tokens. That activity can attract speculators who care more about profit than the community's purpose.

The researchers point to cryptocurrencies, which were meant to be used for buying things. Instead, they get held as investments. Over time, Sockin's models predict, a few entities tend to accumulate both tokens and control.

"The ability to get high returns has hurt cryptocurrencies as mediums for payment, because people don't want to spend it," he said. "They can easily take us back to being like Amazons and Apples, which is the whole issue we were trying to move away from."

More information: MICHAEL SOCKIN et al, Decentralization through Tokenization, *The Journal of Finance* (2022). DOI: 10.1111/jofi.13192

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