Keio SFC Academic Society, Research Grant 2024 Research Activity Report

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Context :

The research activity report is about my presentation on "The Role of Agri Startups Towards Agricultural Information Delivery – Case of Tamil Nadu, India" at the conference - International Conference on Resilient Systems 2024, held at Singapore between 28th-30th august 2024. The ICRS is jointly organised by the Singapore-ETH Centre (SEC), 4TU Centre for Resilience Engineering (4TU.RE), the Technische Universität Darmstadt (TUD), ETH Zürich, and the Stevens Institute of Technology. The three-day session had presentations, discussion panels and interactive sessions, and gave the participants an opportunity to exchange cross-national and cross-disciplinary perspectives on resilience, for meeting the challenges of today and tomorrow. Researchers from different disciplines had a chance to delve into the design, analysis, and governance of resilient Social-Technical-Environment (STE) systems.

Overview :

Indian agriculture is facing significant challenges including monsoon failures, high input costs, and debt burdens, which adversely impact productivity and farmers' incomes. Effective dissemination of agricultural information is crucial for improving decision-making from sowing to selling. ICT has been recognized as a key tool in enhancing agricultural information dissemination, but its full potential is yet to be realized in India. The objective of the study involved:

- Evaluate how agritech startups contribute to the dissemination of agricultural information.
- Assess the effectiveness of these startups in addressing the gaps left by traditional extension services.
- Explore the impact of these startups on farmers' decision-making and agricultural resilience.

Data was collected through semi-structured interviews and surveys with:

- Agritech startups operating in Tamil Nadu.
- Ecosystem providers such as NGOs, tech companies.

The data from interviews were analyzed to identify key themes and patterns in the role of agritech startups to assess the impact of these startups on agricultural information dissemination. The startups though positively impacted farmers in improved decision making, increased productivity and enhance market access, they were restricted in operation to large scale farmers. The other challenges recognized were their operation in the context of digital divide, multi-stakeholder operation, requirement gathering from farmers and financial sustainability.

Dr. Adam smith, ETH Singapore SEC Ltd who chaired the session on Food System Resilience asked on feasibility of startups in fintech, regional language issues and how these startups cater their services to the farmers, etc.

It was overall a educative experience to participate and learn from several presenters on cyber physical system resilience, infrastructure and system resilience, digitalization and resilience, etc.