

Memorandum of Agreement for executing

“Developing Blockchain Based Inclusive Agriculture Ecosystem for Jharkhand”

THIS MEMORANDUM OF AGREEMENT (MoA) is made at Dhanbad on this 18<sup>th</sup> day of February, 2022  
AMONG: -

**Indian Institute of Technology (Indian School of Mines) Dhanbad, Jharkhand-826004** (hereinafter referred to as the “IIT(ISM)”)

And

**Twinsset Pvt Ltd, startup incubated at the University of Hyderabad, having its administrative offices at P.O. Central University Campus, Gachibowli, Hyderabad – 500 046, Telangana** (hereinafter referred to as the “Twinsset”)

And

**Samunnati Financial Intermediation & Services Pvt Ltd** having its registered office at Baid Hightech Park, 129-B, 8<sup>th</sup> Floor, ECR, Thiruvannmiyur, Chennai – 600 041, Tamil Nadu (hereinafter referred to as the “Samunnati”)

**Objectives of this MOA:**

The main objective of this MoA is intended to conceive, develop and implement a block chain project for lac farmers/cultivators in Jharkhand and inter-alia develop certain blockchain technology and thereafter study the trends in farmer lending for Farmers Producers Organisation’s (FPO’s).



## Essential baseline and background of the Project:

A large population in Jharkhand is completely dependent on agriculture and allied activities. In particular, Lac cultivation forms a major source of income for tribal farmers in Jharkhand. Among the top ten lac producing districts, five of them are in Jharkhand with the highest produce seen from Ranchi (Jharkhand) followed by Simdega (Jharkhand) in 2015-16 and 2016-17.

A large percent of the farmers are small and marginalized and sell raw lac without adding any value. The prime reason for this is lack of finance; due to the unorganized sector and lack of bargaining power, only fewer credit facilities are available to the farmers and at a very high cost. Due to the high cost of borrowing, farmers have little profits to contribute towards the development of infrastructure, scaling up their production output and so on. This leaves them financially much worse and exposing them to the risk of external threats. Problem of lack of marketing infrastructure, exploitation by middlemen is prevalent for lac cultivators.

Collectivization of producers, especially small and marginal farmers, into producer organisations has emerged as one of the most effective pathways to address the many challenges of agriculture but most importantly, improved access to investments, technology and inputs and markets. Department of Agriculture and Cooperation, Ministry of Agriculture, Govt. of India has framed a National Policy for the promotion of Farmers Producers Organizations.

The main objective of FPO's (Farmer Producer Organisations) is to organize farmers into a collective and improve their bargaining power in the market. In particular, reduction of cost of borrowing, providing market linkages and overall well-being of the farmers. However, mere aggregation will not yield desired results unless the demand side and supply side problems are addressed. On the demand side, farmers would like to have access to timely finance with lower rates of borrowing. On the supply side, lenders require more information to assess the default risk of the farmers and thereby reduce their information asymmetry problem.

This proposed Project aims to reduce the frictions on both demand and supply side by introducing two specific technology based interventions, namely, **robo-advising service** (on the demand side) that aims to improve financial discipline of farmers and **block chain design** for lac farmers/cultivators transactions with FPO and lenders (on the supply side), that aims to reduce the information asymmetry and better monitoring of assets for the FPO and lenders. These two technological interventions may help reduce borrowing costs and improve famers' economic wellbeing. Thus, more efficiency and improved margins through FPO



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aggregation would increase lac farmers' contribution to Indian GDP. Research on technology interventions to reduce information asymmetry is limited for farmer empowerment.

The IIT(ISM) Dhanbad aims to partner with **Twinsset Pvt Ltd, startup incubated at the University of Hyderabad** and Samunnati Financial Intermediation & Services Pvt Ltd ("**Samunnati**") works towards building a blockchain between the two entities. Both the external parties, **Twinsset Pvt Ltd** and Samunnati shall be the consenting parties for this MOA.

#### **Partners and their Roles and Responsibilities:**

##### **IIT(ISM) Dhanbad (The Project Lead and Sponsor):**

IIT(ISM) Dhanbad is a public academic Institution under the Ministry of Education, Government of India, located in Dhanbad, India.

##### **Role of IIT(ISM) Dhanbad:**

1. The Project will be administered by IIT(ISM) Dhanbad that includes sponsoring of the project, scoping of the project, research design, software customization, implementation of the artificial intelligence and block chain enabled platform for lac ecosystem and assessment.
2. Dr. Shashank Bansal, Assistant Professor of Department of Management Studies and Dr. Ruchika Sehgal, Assistant Professor of Department of Mathematics & Computing are the Principal Investigators and Co-Principal Investigators respectively of this project.

##### **Role of Twinset Pvt Ltd**

1. IIT(ISM) Dhanbad will purchase the lifetime software licensing from Inclusive Growth Chain Blockchain Platform by Twinsset Pvt. Ltd. Twinsset Pvt. Ltd will allow IIT(ISM) Dhanbad to customize the software as per the requirements of the present project. This is on a condition that, any modification, enhancement or customization of the software will be done in partnership with Twinsset Pvt Ltd. Twinsset will remain at the platform maintenance partner for mutually agreed charges.
2. Twinsset Pvt Ltd will also provide domain expertise and support in customizing and implementing the Inclusive Growth Chain Blockchain Platform software in creation of the artificial intelligence and block chain enabled platform for lac ecosystem. However, notwithstanding anything contrary contained herein, parties shall use the platform in Hindi language for lac trading ecosystem only in partnership of IIT (ISM) Dhanbad. IIT (ISM) Dhanbad shall remain the user for Lac trading ecosystem.



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Handwritten signature of a representative of Samunnati Financial Intermediation & Services Pvt. Ltd.





## Role of Samunnati Financial Services Ltd (Lending Company)

1. Samunnati shall act as a lender for financial support to lac cultivators. Samunnati shall also share the prevalent lending parameters to develop a functional platform/service. Samunnati to also provide market-linkage and other advisory based services to lac cultivators and FPOs with regard to deployment of the technology.

## NOW, IT IS HEREBY AGREED BY AND AMONG THE THREE PARTIES AS UNDER:-

1. That Project broad “Objectives” are to

Develop two specific technology-based interventions, namely, robo-advising service (on the demand side) that will deliver accurate predictions of farmer requirements, cashflows, and crop yield to various stakeholders and block chain design that will facilitate in reliable data collection for accurate predictions, increase traceability of farmers asset and regulate farmers transactions with FPO, lenders, and associated industries (on the supply side) which included development of website and Android mobile application specifically for lac ecosystem of Jharkhand. In broad parlance, to build a blockchain interface of lender and the FPO-Farmer Producer Organization referred to as (“Technology Development”)

- i. Develop chatbot that is a software application to facilitate smooth interaction of farmers with the mobile application
- ii. Appropriate naming reference shall be identified for these 2 technological interventions.
- iii. The technology will be an easy interface between lenders and FPO & farmers
- iv. Increase transparency between lenders and farmers over financial transactions. 3 (three) rounds of borrowings shall be observed from pilot start date and will review impact of blockchain in the overall Project
- v. Project working scope will be extended to Jharkhand
- vi. Project timelines:

- Pilot Project to develop by September 2022, and pilot run and training of farmers by April 2023
- Detail work: Follow up farmers till October 2023 on aspects such as measuring parameters such as current level of skill set, position of asset base, train them on using the blockchain, check if training helped them in improving repayment and also understand cycle of loan and negotiate better rate, asset utilisation, improve lending facility and reduce lending rates, farmer community to be tracked in asset use, cost of borrowing



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IIT(ISM) Dhanbad will bring its team to assess, review project, impact analysis and owns the project outcome, research reports.

2. IIT(ISM) Dhanbad as a consideration for use of the intellectual property shall pay Rs.8,00,000 to Twinsset as a one-time software acquisition. This also includes the server cloud cost and maintenance for the duration of MoA

3. **Branding:** Twinsset Pvt Ltd and Samunnati Financial Services Ltd logo and branding at all project collaterals at all times shall be identified as “ Partners” OR “Collaborators”. This branding endorsement shall be live and endorsed for the current Project as long as IIT(ISM) Dhanbad is exploring the Project irrespective whether any other partners have changed or added later. The parties shall seek such permission to use logo or names in through a written request.

4. **IP Ownership & License:** IIT(ISM) Dhanbad and Twinsset Pvt Ltd shall jointly own the intellectual property rights of any intellectual property created while executing and implementing the project. The intellectual property includes any software, algorithm, flow-chart, logic, formulae, specifications, process or product. The original IP of blockchain platform belongs to Twinsset Pvt Ltd. However, Twinsset Pvt Ltd grants a non-exclusive perpetual license to IIT(ISM) Dhanbad and a limited right to use the technology to Lac trading ecosystem in Hindi. IIT(ISM) Dhanbad shall be free to develop and use such IP of blockchain platform along with Twinsset in future perpetually or on a mutual consent with any other party.

The revenue that may be generated by commercializing the Project intellectual property jointly created under this MoA shall be equally shared between the parties after deducting the incidental expenses. This joint project intellectual property can be licensed and commercialized through third-parties by the parties on equal sharing basis.

5. **Duration of this MoA:** The duration of this MoA is for two years from the date of signing by all the parties to this MOA.

6. **Obligations of Samunnati:** Samunnati shall offer the financial services by adhering all the applicable protocols and security features. Samunnati shall also clearly mention the users and undertake a separate agreement with the users of their financial services. Samunnati shall also fully indemnify IIT (ISM) Dhanbad for any loss or damage done in respect of any and all financial services by Samunnati.

**Confidentiality & Data Sharing:** It is agreed by all the three parties that the contents of this Memorandum of Agreement (MoA) shall not be shared by either of the three parties with any other party. Further, exchange, use and maintenance of confidential data shall be mutually discussed and agreed to by the parties.



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However, "Confidential Information" does not include:

- i) information that is in the public domain at the time it is received by the receiving party;
- ii) information that after receipt thereof by the receiving party enters the public domain other than through a breach of this MoA by the receiving party;
- iii) information that the receiving party can show was, prior to receipt thereof from the disclosing party, lawfully in the possession of the receiving party and not then subject to any obligation on the part of the receiving party to maintain the confidentiality thereof;
- iv) information that the receiving party can show was independently developed by employees, agents or consultants of the receiving party without any knowledge or use of the information disclosed by the disclosing party under this MoA; or
- v) information that is approved in writing by the disclosing party for disclosure, provided that the disclosure by the receiving party was made in accordance with the terms of such approval;

7. The parties hereby undertake that they will not, either during the execution of work or at any time thereafter (except in the proper course of their duties under this MoA or as required by law or by the other party) disclose to any person any confidential information relating to the other party which it has possessed as a result of this MoA or the negotiations preceding this MoA including, but not limited to, the terms of this MoA. Any data that is accessed by any party is only for the limited purpose of the Project Objective and except IIT(ISM) Dhanbad, no party owns the data generated herein. For this specific purpose, IIT(ISM) Dhanbad grants a limited time right of access to data generated to other parties under this MOA.

8. At anytime during the Project, if any of the lender and FPO is unable to continue in the Project then IIT(ISM) Dhanbad shall endeavor to bring similar firms to the Project and shall complete the work.

9. That in case any dispute arises relation to the MoA, the same shall be referred for amicable settlement or if that fails then will be resolved by arbitration in accordance with the provisions of Arbitration and Conciliation Act, 1996, by a panel of three arbitrators nominated by IIT (ISM) and Twinsset . The two arbitrators thus appointed shall select the third arbitrator. The seat or venue of Arbitration shall be at Dhanbad, India. The language to be used in arbitral proceedings shall be English.

10. That the parties agree that Courts at DHANBAD shall have exclusive jurisdiction over all the matters relating to and the disputes arising out of this MoA.

11. This MoA contains the entire understanding between the Parties and supersedes all prior or contemporaneous oral or written agreements, Commitments, understanding or communication with respect to the subject matter hereof.



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12. The assignment by any party of all its rights and obligations under this MoA to a third Party shall be subject to the written consent of the other Party provided that such assignee also specifically agrees in writing to be bound by the terms of this MoA.

13. This MoA shall come into force as soon as it is signed for all purposes and intents and shall, unless earlier terminated by mutual written consent, remain in force for a period of 2 years from the date hereof unless extended or terminated by the parties by mutual consent in writing. The parties may terminate this MoA by giving a one month written notice to the other party.

#### 14. Non-Exclusive

The parties agree that the activities under this MoA are on a non-exclusive basis and parties can engage in same or similar activities with other partners. Nothing in this agreement preempts the parties from entering into an agreement with third-party in the area of cooperation. However, blockchain enabled platform that is owned by Twinsset Pvt Ltd will not be used in any form with the consent of Twinsset Pvt Ltd in any third party engagement.

#### 15. Disclaimer

Any and all deliverables by exchanged between the parties under the MoA shall be on as-is-where-is basis. Either party does not make any representations, conditions, or warranties, either express or implied, that such deliverables including any intellectual property

- (i) corresponds to a particular description;
- (ii) is of merchantable quality;
- (iii) is fit for a particular purpose; or
- (iv) is durable for a reasonable period of time.

The parties acknowledges that they have been advised to undertake its own due diligence regarding the deliverables before its commercial use including licensing to any commercial entity.

16. Notwithstanding anything contrary contained herein all the activities including the commercial activities undertaken by Samunnati and/or Twinsset shall be undertaken with full liability and IIT (ISM) Dhanbad or any of its employees shall not be liable for any loss or damage that may occur to any user deriving title from these parties.

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IN WITNESS, WHEREOF, the parties through their authorized representatives have executed this MoA  
AT DHANBAD.

AGREE

**IIT(ISM) Dhanbad**

By: Sagar  
Dean (Research & Development) CD  
Indian Institute of Technology  
(Indian School of Mines)  
Dhanbad - 826004 (INDIA)

Name: SAGAR PAL

Title: Dean R&D(CD)

AGREE yes

**Twinset Pvt Ltd**

By: M. V. A.  
(Signature)

Name: Vijaya B Marisetty

Title: Professor, University of Hyderabad  
Co-founder, Twinset Pvt Ltd

AGREE yes.

**Samunnati Financial Intermediation & Services Pvt Ltd**

By: V. M. K.  
(Signature)

Name: SG Anil Kumar

Title: Founder & CEO

