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Technology implementation-improved governance- primary agriculture cooperative societies, Odisha: A case study

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Abstract

Odisha is one of the fastest growing states in the country. Odisha has become a model for good governance and public service. The state has implemented the 5T model of governance, which prioritizes transparency, teamwork, technology, time, and transformation. The committee will function under the administrative control of RCS, Odisha. For monitoring the functioning and addressing the challenges in implementation of the scheme the State Government has constituted State Level Monitoring and Implementation Committee (SLMIC) with Secretary to Government, Cooperation Department as Chairman to extend all possible guidance as well as steering the implementation whereas District Level Monitoring and Implementation Committee (DLMIC) with collector of the district as the Chairman for smooth implementation of the project as per approved guidelines and provide necessary support like power connectivity etc. The cooperative movement eco-system has embarked on a commendable and authentic endeavour, which will undoubtedly fortify the movement within the state. This undertaking signifies a significant stride towards converting small-scale enterprises at the village level, thereby rendering previously unattainable services accessible in remote areas at an affordable price. Moreover, this audacious initiative aims to elevate the Primary Agricultural Credit Societies (PACS) into formidable establishments, capable of functioning as multifaceted service centres. Undoubtedly, this progressive measure will effectively bridge the developmental divide between urban and rural regions in Odisha.

Keywords: PACS, governance, 5T, ICT, computerisation

Introduction

Odisha has undergone a remarkable transformation, shedding its previous image as a poor and underdeveloped state to become one of the fastest growing states in the country. Along with its impressive economic progress, the state has also become a model for governance and public service. The implementation of the 5T model of governance, which prioritizes transparency, teamwork, technology, and timeliness leading to transformation, has set a high standard for public service delivery in the state. Odisha's achievements have been recognized with top rankings in human resource development and economic governance among group B states in the Good Governance Index (GGI) 2021 published by the Centre. Additionally, the state has significantly improved its GGI score from 4.44 in 2019 to 4.85 in 2021, further cementing its reputation as a leader in good governance.

In order to guarantee timely provision of public services, the state of Odisha has implemented the Odisha Right to Public Services Act, granting citizens the authority to request public services as their legitimate entitlement. The 'Odisha One' portal functions as a centralized hub for the delivery of more than 440 government services spanning across 44 departments, including the Cooperation Department. This endeavour aligns with the State's goal of ensuring accessibility to citizen services from both the State and Central Government at the Panchayat level.

The Department of Cooperation and its various divisions have been established with the primary objective of enhancing the co-operative movement within the state. Initially, the Cooperation Department was a component of other departments such as Agriculture and Forests. However, in 1991, it became an independent department under the Government of Odisha.

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Till recent times there were 2710 Primary Agriculture Cooperative Societies (PACS/LAMPCS) operating at the grassroots level in the state of Odisha. During this year it has added 1521 more number of Primary Agriculture Cooperative Societies with an objective to enhance their infrastructure to meet the growing credit needs of farmers in rural areas specifically at Panhayat level as well as to increase the brand value in terms of make these services available at doorstep.

The Cooperative Banks and PACS play a significant role in offering banking and credit services to individuals at the grassroots level. These institutions, namely PACS and LAMPCS, distribute crop loans for seasonal agricultural activities to farmers using Kisan Credit Cards. Additionally, they provide loans to tenant farmers, sharecroppers, oral lessees, and others through Self Help Groups and Joint Liability Groups. The government is actively involved in facilitating the disbursement of interest-free crop loans up to Rs.1 lakh.

Furthermore, farmers receive credit support for asset creation in various agricultural sectors such as farm mechanization, land development, horticulture, animal husbandry, and fishery.

Moreover, farmers in the State also benefit from the services offered by PACS and LAMPCS, including the supply of inputs like seeds, fertilizers, and pesticides. These institutions also assist in the marketing of agricultural produce such as paddy, oilseeds, and pulses.

Recognizing the crucial role of PACS as the primary service delivery point within the three-tier short term credit cooperative structure operating in rural areas, the government has decided to automate the activities of PACS through computerization. This initiative seeks to modernize activities and establish standardized accounting and business practices, while ensuring greater accountability and transparency in providing credit services, distributing quality seeds, and offering other allied services to member farmers. To achieve this, PACS will be connected to the Data Center of OSCB and DR with Faridabad, enabling real-time data on PACS transactions to be made available at the state level for policy intervention.

Currently, PACS play a pivotal role in the allocation of agricultural credit, with a significant proportion of agricultural credit inflow being directed through cooperative outlets. Impoverished and medium category farmers rely on PACS to obtain timely agricultural credit support at reduced interest rates, as well as to avail themselves of market support for the sale of their agricultural produce.

The preservation of two out of the five Ts, specifically Technology and Timeliness, can only be accomplished by establishing transparency and converting grassroots level organizations into business enterprises capable of operating in remote villages. This will enable the extension of all citizen-centric services of the Government to the rural poor, particularly farmers. This process has the potential to improve the financial well-being of these Primary Agricultural Credit Societies (PACS). The implementation of technology in the majority of these grassroots level organizations in Odisha has sparked a revolution, revitalizing them. This allows all stakeholders and decision-makers to have a comprehensive view of the operations of each unit on a single screen, enabling policy makers to develop strategic policies to enhance the economic condition of the institution as a whole, with a specific focus

on farmer members. Consequently, these foundational institutions of the short-term cooperative credit movement in the State can be transformed into business enterprises that significantly contribute to the country's GDP.

Introduction

The PACS, formerly known as Grain Golla, has been in operation since the Pre-Independence era. It has faced significant challenges due to colonial depression but has received support from the Government. The transition from Grain Golla to PACS/LAMPCS has been made in order to improve the functioning of the PACS and provide timely, high-quality, and effective services to farmers. The aim is to establish trustworthiness among the farmers. Therefore, it is now necessary to blend tradition with ICT (Information Communication and Technology) enabled services, which will greatly assist in achieving these goals. The implementation of the PACS on a CBS (Core Banking Solution) platform is of utmost importance.

Odisha is the first state to implement an integrated Computerization Project for the three tiers of the Short-Term Cooperative Credit structure and Urban Cooperative Bank. This project aims to strengthen and streamline service delivery to farmers, loanees, and depositors by cooperative banks and PACS. The project includes connectivity to the Data Centre established at the Odisha State Cooperative Bank (OSCB) level. The computerization of PACS, along with the distribution of Ru-Pay Kisan Cards to farmers, should be completed within a specific timeframe. It is imperative that PACS employees receive immediate training to properly handle paddy procurement activities and computerization tasks. A roadmap should be prepared to guide these efforts.

Since PACS is the most important service delivery point of the three-tier short term credit cooperative structure functioning in the rural areas, Govt. has decided for computerization of PACS for streamlining the activities and to establish standardize accounting and business practices, providing services of credit, distribution of quality seeds and all other allied services to the member farmers with greater accountability and transparency. The state Govt. originally sanctioned Rs 35 crore for computerization of 2600 PACS in the state, which was subsequently, enhanced to Rs 48.77 crore for extension of CBS implemented in OSCB and DCCBs to the computerization of PACS with connectivity to the data center established at state level.

The computerization process is in progress in respect of 2600 PACS. Till date 808 PACS have been linked with data centre of OSCB and have been online. A special software package i.e. Kisan online has been developed for transaction. To accelerate this system it has been decided to install 581 VSAT for operation of banking activities, access to Ru-Pay Kisan Cards through micro ATMs where connectivity through broad band or dongle is not available, besides it has been planned to install 200 solar panel systems on the roof of the PACS, apart from powering the VSAT, will also power the Desktop, Printer and Scanner though one UPS, with limited lighting facilities in the premises where electricity connectivity is not available. As on 16.04.2019, 553 VSATs have been installed.

Commissioner-cum-Secretary, cooperation Department took review of computerization of PACS on 18th December, 2018 in which the representative of M/s V soft Technologies were asked to submit an action plan for completion of offline voucher entry by 31st December, 2018 after which there

would be only online transaction of all the 2600 PACS. Accordingly M/s Vsoft Technologies submitted an Action plan for completion of PACS Computerization which needs further consultation with all stake holders that is Registrar Co-op Society, Odisha and Central Coop Banks.

In line with the initial plan for migration of PACS and as per the timeline discussed and decided from time to time, data pertaining to 2565 PACS has been migrated so far with the impediment like poor connectivity using various mode like VSATs or 2G dongles, PACS could not effectively utilize the migrated data for their day to day operation by connecting to the application housed at the OSCB Data Center. It is a natural consequence that some of the PACS have remained not updated and hence have remained being back dated.

Proceedings of the meeting on Implementation of CBS in DCCBs and OSCB and PACS computerization held on 19.12.2018. Support center is to be restructured to support DCCBs/UCBs/PACs/OSCB for data centre in a professional environment. Required Workstation, Internet connection, Infrastructure setup etc. to be provided in a very urgent basis. Monitor mechanism of the said support centre will be ensured by the monitoring committee.

As per the decision taken in the high-level meeting held on 17th August 2019 it was decided to complete the PACS computerization process by the end of December, 2019. Hence, a detailed process along with timeline, checklist, roles and responsibility of different field officers such as All Divisional DRCS, all Circle ARCS, CEOs of DCCBs and OSCB was forwarded to the above-mentioned stakeholders from the Directorate of Cooperative Societies, Odisha vide letter No. 18812 dated 31.08.2019.

To fix the technical issues like network connectivity and speed up the migration process, OSCB had provided an offline excel tool to enable PACS to capture master data. Suggestion on excel tool to capture master data of PACS provided by OSCB for computerization PACS was forwarded to the Managing Director, OSCB vide this office letter No. 19811 dated 11.09.2019. A training program was conducted at OSCB on 03.10.2019 for PACs Computerization on "Roots" application for detailed deliberation of excel tool to enter back date data manually, so that the PACS can enter the Master data on PACS Computerization and as a result on the day of migration the account balances will be available immediately in the CBS application on the day and PACS can go ahead for recording daily transaction on Roots Application on online mode on day to day basis. Detailed training on PACS Computerization is also being conducted by CEOs of DCCB/OSCB in different Divisions/Circles with conjunction with SAKHYAM (e-Governance) application. All the DRCS/ARCS/CEOs of DCCB has been sensitized to review the progress of PACS computerization of their Division/Circle/ Branch and take steps to complete the PACS Computerization migration process with in the fixed timeline.

The Registrar of Cooperative Societies, Odisha has instructed to all ARCS/DRCS/CEOs of DCCB to conduct video conference in every fortnight to review the progress of PACS Computerization by the RCS, Odisha as per the institutions provided by the OSCB/Registrar of Cooperative Societies, Odisha this office letter No. 22386, dated 16-10-2019.

Objective of the Study

The existing systems and procedures followed in the operation of PACS are fraught with several challenges. The issues faced by various stakeholders are detailed below:

Issues faced by Farmers are as follows:

- a) Undue delay in sanctioning credit mostly due to non-scientific record keeping and antiquated member data.
- b) Farmer buying from the open market adulterated inputs like seed, fertilizer, pesticides, etc.

Issues faced by Societies are as follows

- a) Inadequacies and inaccuracies of the book-keeping. Inability to have standard bookkeeping practices resulting in fraud and embezzlement cases.
- b) Lack of standard reporting to DCCB/Apex Bank. In absence of authentic bookkeeping practices, the reports generated for policy making are mostly inadequate.
- c) Information as required by other institutions from the societies is in non-standard format hence are time consuming and cumbersome.
- d) Inability to do multiple businesses different from basic activities which otherwise can enhance profitability of the societies.
- e) Difficult to maintain the Stock inventory manually for fertilizers, seeds, pesticides, food grains, etc.
- f) Lack of transparency and accountability.

To address the various problems stated above, Information Technology can be utilized as a facilitator in achieving the following

- a) Ensure application of standard business process and practices, increase efficiency and thus reduce inherent delays.
- b) Efficient use of Ru-pay Kisan Cards issued by banks.
- c) Timely PMFBY data upload.
- d) Facilitate in integrating wide range of services.
- e) Bring transparency and accountability.
- f) Support in establishing MIS for governance.
- g) Monitor, determine and prevent leakages and imbalances in the system.
- h) Enhanced ability to maintain error free stock inventory at PACS level.

Moreover, the financial world has already embraced the technological revolution and is reaping the benefits in terms of greater customer satisfaction, numerous business channels, customer retention, customized products, credit history, etc. In the present financial landscape, adoption of technology is not a matter of choice. If the Short Term Cooperative Credit Structure (STCCS) miss to grab the opportunity, then it may lead to the ultimate demise of these institutions as RRBs, Payment Banks and small finance banks are increasingly looking to tap into the customer base of cooperative societies as well as DCCBs.

Considering the above background NABARD approached Government of India to provide budgetary support for the computerization of PACS. Subsequently, the proposal was considered in the Union Budget 2017-18. This approach note-is prepared to document and suggest the structure and process to be followed to complete the work of computerization of PACS over a period of 03 years.

Methodology

The PACS are divided into following four categories

1. The PACS which are up to date with the present Core Banking System (CBS).

2. The PACS which are up to date records with up to 31st March 2023 or beyond that.
3. The PACS which are connected to Core Banking System (CBS) but posting is not up to date
4. The PACS, which are not at all, connected to core banking
 - The 1st category of PACS is required to bring the entries up to date at least before one week of proposed migration into new system. The data will be directly migrated from the existing system to the new one the other three (3) categories of PACS have to use the Excel sheet provided by OSCB.
 - Those PACS who have posted data up to past one year will be given available data of that PACS from the existing database with OSCB in the Excel format as available from last migration (if any).
 - These PACS have to update the database and status of Accounts, Accounts Balance and KYC details etc.
 - Rest of PACS will have to enter data manually into the Excel format/ Template Tool recently provided on the date of training and through e-Mail for pre-practisation of static data and instant migration of static data into CBS platform i.e. ROOTS Application.
 - The most important thing for these PACS is balancing of books of accounts to As On date on which Migration will be done. So that, on the date of migration the account balances should be available immediately in CBS application on that day and the PACS can go ahead for recording daily transaction on ROOTS application in online mode on day to day basis after reconciliation of schedule vs General Ledger (GL) balance with reference to NTB.

To facilitate this, all the books of accounts (i.e. Membership Register, Share Register, Individual Loan ledgers, Balance Register, Individual Deposit ledgers/ deposit Balance Registers, Land register, Investment Database etc.) should be balanced completely during one month before the date of migration. Concerned CCB is to ensure validation of data.

1. Then one week before the balances will be updated/ taken down again and books should be balanced till the date of Migration. This will help in providing the figure quickly on the date of migration.
2. The other important points to be filled up are: the rate of interest, calculation of accrued interest till the date of migration.
3. To categorize PACs as per Sl. No i-iv immediately as per the stages of data entry.
4. Availability of updated static information at PACS level
5. Fixing the date of migration keeping in view of the stage of data entry of each PACS Register, Borrowing Register and Member's KYC Take up the steps of migration in concerted effort with representative of vendor at CCB, PACS and OSCB.

For transforming from manual record keeping and management information system and to on-board into CBS platform the following stages are proposed.

Hardware arrangements

For data entry and counter notes for operation the hardware part shall be arranged by the PACS. For functioning on CBS mode the arrangement of internet connectivity to be made at each PACS level and also the standby arrangement like

Dongles, V-SAT for backup support in case of failure in internet connection.

The data entry to be made by the PACs at their own cost other than that no other charges for supervision and support shall not be paid by the PACS.

Manpower/HR Arrangement

Besides the support of engineer attached to DCCBs one more support staff to be attached to each DCCBs for rendering hand holding support and service to the PACS dedicatedly for solving the issues.

Placement of Data entry tool.

OSCB shall provide an appropriate, user friendly and cloud-based tool to all the PACS for capturing the master data and Transactions pertaining to the broken period (1st April of the financial year to Cut-off Date).

Data Entry

The data entry on offline mode is to be completed by the PACs with in time bound schedule. The offline tool/Excel sheet in required format shall be provided by the support team of Software vendor with compliance to norms laid by OSCB followed by the basic training and guidance to the dedicated Data Entry Operators.

The progress of data entry to be intimated to the Control Room at week intervals through mail or telephone. The support engineers attached to DCCBs are required to guide, supervise and ensure the data entry process for timely completion.

Reconciliation and Rectification of data

After completion of the data entry the support team of Software vendor under the guidance of support engineers attached to DCCBs are required to upload the data to the offline/Test server and to generate/provide the copies of the statements mainly Balance Book, NTB and Sc vs. GL statement.

A thoroughly checking of above statements to be made and certified by the Secretary/MD of the PACs can also be counter signed by any Administrative officer deputed by circle ARCS.

Migration to online Platform

Obtaining the confirmation / certification the data accuracy / Reconciliation, the support team of software vendor required to upload the data in a dedicated Test Server.

Online and Go-Live

The result of Mock to be examined by the engineers attached to DCCBs and to list out the issue if any.

Analysis

The expected outcomes from the PACS computerization project are as follows

- Bring in transparency and timeliness in the operations of the PACS.
- Improvement in the service provided to the PACS members.
- Generation of Normal Credit Limit (NCL) application by PACS to District Central Co-operative bank (DCCB) /State Co-operative bank (StCB).
- Maintenance of Digital Member Register (DMR) at the DCCBs/StCB level and synchronization of the same

with PACS software to be made more effective and accurate.

- Enhanced availability of quality Management Information Systems (MIS) to the-stakeholders CCBs/StGBs, State-Government, NABARD and Union.
- Government for better monitoring and control.
- Expeditious Compliance with all the regulatory requirements in operations and reporting.
- Greater digitization of rural financial systems and accelerate the move towards digital India.
- Generation of data for PMFBY portal from the computerized PACS systems.
- Faster calculation of the interest subvention for the agricultural borrowers.
- Quicker production of accurate financial statements at the end of the financial year, thereby, reducing the time taken for auditing and help the management to take informed decisions to improve the business.
- IL Enhanced customer satisfaction through faster availability of credit and non-credit products.

Findings

Five years after the launch of an integrated core banking solution (CBS) project covering all three tiers of short-term cooperative credit structure, a few Primary Agriculture Cooperative Society (PACS) and Large Area Multi-Purpose Cooperative Societies (LAMPS) have not been able to on-boarded to CBS platform. The efforts are on for scaling up of the data centre at OSCB level, once done it will be able to accommodate all the societies along with OSCB, its branches, CCBs and their branches, 2710 PACS and 1521 newly constitutes PACS.

The State government has directed the Registrar of Cooperative Societies (RCS) to complete the process of on-boarding of PACS and LAMPS to the CBS platform by September 30, 2022, so that real-time transactions could be made from October 1, 2022, the beginning of the Kharif marketing season.

Though the department claimed to have completed the computerisation of all the 2,710 primary societies and most of them have successfully completed the process of migration to the data centre of Odisha State Cooperative Bank (OSCB), many societies are internet connectivity issues. The PACS, where data migration had occurred and the societies have gone online, are also facing software snags, poor and improper migration of data, and inadequate data on the system post-migration.

Training of ARCS, DRCS, and CEOs of Central Cooperative Banks about the on-boarding of primary societies to the CBS platform is in the process and Cooperation Department is taking it in phased manner.

The status of computerisation of PACS as on 07-10-2023,

1. Out of 2710 PACS in the state 2565 PACS have been migrated to CBS platform with an achievement of 94.64%. Out of these PACS 16 PACS are running online with day-to-day transactions in CBS applications, 2041 PACS are in online back-dated voucher entry stage the reason being the capacity of the data center.
2. Out of 57 circles in the state 19 circles have achieved 100% of the data migration progress.

In order to expedite the process of computerisation and on boarding of PACS/LAMPCS to CBS platform the

Department of Cooperation, Government of Odisha has initiated the following steps

1. PACS/LAMPCS need to update all books of records on daily basis.
2. All the officials of the system (starting from Commissioner to personnel of PACS/LAMPCS) will be sensitised about all the measures to be taken to bring each of these societies into CBS.
3. OSCB need to prepare an Action Plan incorporating the way forward including periodic sensitisation of the personnel involved in the process of bringing all PACS/LAMPCS into CBS.
4. For updating books of records of PACS/LAMPCS a dedicated Data Entry Operator (DEO) is to be engaged to work exclusively on PACS computerisation so that necessary transactions can be made based on updated records.
5. Provision of Dedicated high speed Internet Connectivity and 4G dongles as back up is to be made at each and every PACS / LAMPCS.
6. A technical team of 30 Support Staff (one for each district) is to be outsourced by OSCB to provide prompt and quality services to PACS/LAMPCS for computerisation and staying online for a period of on year.
7. One core team comprising of personnel from Department of IT, OSCB, representative of CBS Vendor, IT Expert of BDPI Cell OSCB and representative of RCS, Odisha to monitor and supervise the progress and issues pertaining to computerisation to higher quarters at periodic intervals.

It is needless to say that Odisha is the first state to implement an integrated Core Banking Solution (CBS) Project covering all the three tiers of the Short-Term Credit Cooperative Structure i.e. State Cooperative Bank, District Central Cooperative Banks and Primary Agriculture Cooperative Societies. With computerisation of the PACS, the farmers are now able to draw their sanctioned loans from the ATM networks of National Payments Corporation of India (NPCI) having 2.14 lakh ATMs of all Banks across the Country.

RuPay Kisan Cards are also launched by the Cooperation Department for the beneficiary farmers of the state. Micro ATM cards are distributed to farmers for dispensation of loans at the doorsteps of the farmers.

According to the Co-operation Department, Core Banking Solutions (CBS) in Cooperative Banks and PACS, the proceeds of the paddy procurement operations to the extent of around Rs. 8000 crores credited directly to the farmer's account. Now the farmers of the State are empowered to access credit through the ATM networks. Odisha is the first state in the country to introduce such a fool proof system to ensure transparency through technology and network.

Odisha has made a mark in the Cooperative sector and its PACS computerization system has brought 2565 PACS online as on date. To make this activity more penetrating to achieve 100% several measures have been taken by the Cooperation Department of the State.

1. A technical team of 30 Support Staff have been outsourced by Odisha State Cooperative Bank to provide prompt and quality support service to PACS/LAMPCS for computerisation and staying online for a period of one year. Their services have placed

- with DCCBs to cover all the PACS/LAMPCS in 30 districts.
2. A core team comprising of DGM, DIT, PSCB and representative of CBS vendor, IT expert of BDPI cell of OSCB and representative of RCS, Odisha. This team will report the progress and issues of computerisation to higher quarters every fortnight. The committee will function under the administrative control of RCS, Odisha.
 3. For monitoring the functioning and addressing the challenges in implementation of the scheme the State Government has constituted State Level Monitoring and Implementation Committee (SLMIC) with Secretary to Government, Cooperation Department as Chairman to extend all possible guidance as well as steering the implementation whereas District Level Monitoring and Implementation Committee (DLMIC) with collector of the district as the Chairman for smooth implementation of the project as per approved guidelines and provide necessary support like power connectivity etc.

The cooperative movement eco-system has embarked on a commendable and authentic endeavour, which will undoubtedly fortify the movement within the state. This undertaking signifies a significant stride towards converting small-scale enterprises at the village level, thereby rendering previously unattainable services accessible in remote areas at an affordable price. Moreover, this audacious initiative aims to elevate the Primary Agricultural Credit Societies (PACS) into formidable establishments, capable of functioning as multifaceted service centres. Undoubtedly, this progressive measure will effectively bridge the developmental divide between urban and rural regions in Odisha.

Conclusion

The state has set a high standard for public service delivery by implementing the 5T model of governance, which focuses on transparency, teamwork, technology, and timeliness leading to transformation. The centralized 'Odisha One' portal serves as a hub for over 440 government services across 44 departments, including the Cooperation Department. The Department of Cooperation aims to enhance the co-operative movement within the state through its various divisions. In recent times, the state has added 1521 more Primary Agriculture Cooperative Societies (PACS/LAMPCS) to the existing 2710 at the grassroots level. This expansion aims to improve infrastructure and meet the credit needs of farmers in rural areas, as well as increase the accessibility of these services. The Cooperative Banks and PACS play a significant role in providing banking and credit services to individuals at the grassroots level, including distributing crop loans through Kisan Credit Cards for agricultural activities. Additionally, PACS and LAMPCS also supply inputs like seeds, fertilizers, and pesticides to farmers in the state. Recognizing the importance of PACS as the primary service delivery point in rural areas, the government has decided to computerize its activities to modernize operations, establish standardized accounting and business practices, and ensure greater accountability and transparency in providing credit services and other allied services to member farmers. This will be achieved by connecting PACS to the Data Center. The present problem that the network is facing while adding

more and more PACS to the data centre. The infrastructure in terms of capability of the server at data centre of OSCB will be enhanced. All this can be minimised if the Cooperation Department Odisha can be able to make technology improvement rather than adding more technology equipment. Efforts are already on there at Cooperation Department Odisha and very soon this will be the model to showcase in global Cooperative Movement.

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