

Revolutionizing Indian Agriculture: The Rise of Digital Payments for Farmers

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SUMMARY

Digital agriculture payments in India have made significant progress, driven by the government's focus on a digital economy. This article portrayed the e-Payment system introduced by the Department of Agriculture enables direct transfer of subsidies and financial benefits to eligible farmers, replacing the traditional physical channels ensuring efficiency, security, transparency, and access to credit, benefiting farmers. Demonetization in 2016 accelerated the growth of digital payments. Despite challenges like awareness, infrastructure, and cost, various initiatives promote digital payments among farmers which leads to integrate agricultural transactions, enhance financial inclusion, and streamline payment processes. As awareness spreads and infrastructure improves, the adoption of digital payments by farmers is expected to increase, boosting livelihoods and the agricultural sector.

INTRODUCTION

Digital payments in India have undergone significant advancements in recent years, driven by the government's emphasis on a digital economy and financial inclusion. These efforts have aimed to streamline and enhance the efficiency of agricultural payments across the country. The Department of Agriculture in India introduced the e-Payment system in 2012-2013. This electronic payment system enables direct transfer of subsidies and financial benefits to eligible beneficiary farmers. It has replaced the traditional method of disbursing subsidies through physical channels. It collaborates with the government to implement the e-Payment system and ensure seamless transfer of funds to farmers' bank accounts. The National Informatics Centre, a prominent government organization, has played a pivotal role in developing a comprehensive and user-friendly portal for use by different government departments, including the Department of Agriculture. Digital payments have gained popularity in India, and farmers are also embracing this trend due to its numerous benefits.

Benefits of Digital Payments;

Efficiency: Digital payments save farmers' time and money by eliminating the need to visit banks or financial institutions for transactions.

Security: Digital payments offer enhanced security compared to cash, as there is a lower risk of loss or theft.

Transparency: Farmers can easily track their income and expenses, leading to better financial management and transparency.

Access to Credit: Digital payments provide lenders with a comprehensive financial picture, making it easier for farmers to access credit and financial assistance.

Moreover, it reduces paperwork, eliminates manual processes and enhancing its reliability and accountability. These advantages of digital payments have positively impacted Indian farmers. A study conducted by the National Payments Corporation of India (NPCI) revealed that, farmers saved an average of ₹1,000 per year through digital payments. Additionally, digital payments have improved financial literacy and increased access to credit for farmers. On November 8th, 2016, the Prime Minister of India announced the demonetization policy in India had a significant impact on the country's economy, but it also accelerated the growth of digital payments in India which led to aggressive promotion and adoption of digital ecosystem in India. In financial year 2019-20, total number of digital transactions was 4,572 crore with total value 2,953 lakh crore rupees, followed by in 2020-21, total number of digital transactions was 5,554 crore with total value 3,000 lakh crore rupees and in financial year of 2021-22, total number of digital transactions was 8,840 crore with total value of 3,021 lakh crore rupees, respectively. While the adoption of digital payments among farmers is still in its early stages, it is rapidly growing. Farmers in India are utilizing digital payments in various ways, such as paying for agricultural inputs (seeds, fertilizers and pesticides) selling their produce to traders, covering educational and healthcare expenses for their children, and saving for the future.

The use of digital payments streamlines business processes and enhances livelihoods for farmers. To further promote the adoption of digital payments among farmers in India, certain challenges need to be addressed, including:

Lack of awareness: Many farmers are unaware of the benefits associated with digital payments.

Infrastructure: Some rural areas lack the necessary infrastructure, such as reliable internet and mobile phone connectivity, to support digital payments.

Cost: The cost of digital payment systems may be prohibitive for certain farmers.

Initiatives to promote digital payments:

Despite these challenges, the adoption of digital payments among Indian farmers is rapidly increasing. As awareness about the benefits spreads and infrastructure improves, more farmers are likely to embrace digital payments in the future. The government and other stakeholders have taken initiatives to promote digital payments among farmers in India. Some of these initiatives include:

1. Pradhan Mantri Jan Dhan Yojana (PMJDY): Aimed to provide bank accounts to every household in India, including farmers, which facilitated the integration of agricultural transactions with the formal banking system. Farmers were equipped with RuPay debit cards, enabling them to make digital transactions for agricultural inputs, machinery, and selling produce. The scheme also facilitated direct benefit transfers, ensuring subsidies, agricultural loans, and crop insurance claims were directly deposited into farmers' bank accounts, reducing leakages and enhancing transparency. PMJDY encouraged the adoption of mobile banking and USSD technology, making digital payments accessible to farmers with basic mobile phones. The promotion of the Bharat Bill Payment System allowed farmers to pay their agricultural-related expenses digitally. Additionally, PMJDY included a comprehensive financial literacy program, educating farmers about the advantages of digital payments and proper banking services utilization, fostering awareness and trust in embracing digital payment solutions.

2. Pradhan Mantri Kisan Samman Nidhi (PM-Kisan): This scheme promotes digital payments in agriculture through direct benefit transfer (DBT), Aadhaar-enabled payment system (AePS), bank account linkage, and enhanced financial inclusion. PM-Kisan operates on the principle of direct benefit transfer, providing income support directly to farmers' bank accounts and encouraging them to have bank accounts, which forms the foundation for digital payments. The scheme leverages AePS, enabling farmers to receive income support using their Aadhaar identification, facilitating convenient digital transactions without physical bank cards. PM-Kisan encourages the linkage of farmers' bank accounts with Aadhaar numbers, facilitating seamless and secure digital transactions across various payment methods. By providing a platform for farmers to receive income support digitally, the scheme familiarizes them with digital transactions, promoting their adoption and paving the way for exploring digital payment solutions for other agricultural transactions. Moreover, PM-Kisan enhances financial inclusion by directly transferring funds to farmers' bank accounts, expanding the customer base for financial institutions and stimulating the development of digital payment infrastructure in rural areas, thereby making digital transactions more accessible and convenient for farmers.

3. Unified Payments Interface (UPI): UPI offers a user-friendly platform that allows farmers to link their bank accounts to a mobile app, making payments directly and conveniently. It enables peer-to-peer payments, facilitating secure and traceable fund transfers to suppliers, contractors, and other farmers. UPI's integration with agriculture-related platforms streamlines the payment process for online purchases of inputs and machinery. The adoption of UPI as a payment method at agricultural mandis enables cashless transactions, enhancing transparency and efficiency in trade. Additionally, UPI has been integrated into government schemes and subsidies, ensuring direct fund transfers to farmers' bank accounts and improving distribution transparency. UPI's acceptance and usage have gained traction in rural areas due to its user-friendly interface, compatibility with basic smartphones, and availability in regional languages, making digital payments accessible to farmers and facilitating the transition from cash-based transactions. National Payments Corporation of India (NPCI), allowing users to make payments using mobile phone numbers or virtual payment addresses. UPI currently accounts for more than 40 per cent of digital transactions in India, providing significant support to small businesses, street vendors, and migrant workers. Its adoption has rapidly expanded during the Covid-19 pandemic, as it facilitates contactless transactions, ensuring quick and reliable access to finance as well as efficient market and price discovery. A digital payment system was also helpful in efficiently disbursed government funds and support to farmers during

the crisis. It enables fast and secure bank-to-bank transactions, even for small amounts, giving a boost to the economy.

4. Bharat Bill Payment System (BBPS): BBPS offers a centralized platform for bill payments, encompassing agricultural expenses like electricity and water bills. This platform reduces reliance on cash transactions and encourages the adoption of digital payment methods among farmers. BBPS ensures accessibility and convenience by providing multiple channels for bill payment, enabling farmers in rural areas to easily make digital payments without the need for extensive travel or physical cash. It supports various payment options such as net banking, debit cards, credit cards, and UPI, allowing farmers to choose the method that suits them best. The system enhances transparency and tracking by providing digital receipts and notifications, instilling confidence and trust in digital payment systems. BBPS integrates with multiple billers involved in agriculture, simplifying the payment process and eliminating the need for farmers to visit different offices or websites. This integration streamlines financial management and encourages the transition to digital payment methods. Moreover, BBPS promotes financial inclusion by granting farmers, including those in rural areas, access to digital payment options for agricultural bill payments. It reduces the dependency on cash, enhances financial literacy, and fosters participation in the formal financial system, contributing to the overall digitization of the agricultural sector.

CONCLUSION

Digital agriculture payments in India have seen significant progress in recent years, propelled by the government's focus on a digital economy and financial inclusion. The introduction of the e-Payment system by the Department of Agriculture has revolutionized the disbursement of subsidies and financial benefits to eligible farmers, replacing traditional methods with direct transfers. The National Informatics Centre has played a vital role in developing a user-friendly portal for various government departments, including agriculture. Farmers have embraced digital payments due to the benefits they offer, including efficiency, security, transparency, and improved access to credit. Various initiatives have been taken to promote digital payments among farmers, such as the Pradhan Mantri Jan Dhan Yojana, Pradhan Mantri Kisan Samman Nidhi, Unified Payments Interface, and Bharat Bill Payment System. These initiatives have aimed to increase awareness, improve infrastructure, and reduce costs associated with digital payments. Despite challenges, the adoption of digital payments among Indian farmers is rapidly increasing, leading to streamlined business processes and improved livelihoods.

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