

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Machhe, Belagavi-590018



An AICTE Activity Points Report On

“FACILITATING 100% DIGITALIZED MONEY TRANSACTION”

Submitted in partial fulfillment required for award of the Graduation Degree

Bachelor of Engineering
In
Computer Science and Engineering
Submitted by

KAVYA R NAIK

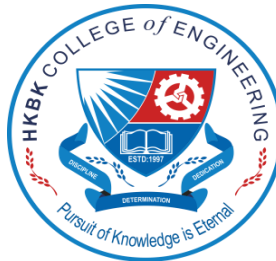
1HK21CS063

Under the guidance of

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Asst. Professor

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Department of Computer Science and Engineering

HKBK COLLEGE of ENGINEERING

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2024-25



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Certificate

Certified that the AICTE Activity Points entitled **“FACILITATING 100% DIGITALIZED MONEY TRANSACTION”**, carried out by **Kavya R Naik (1HK21CS063)** is a Bonafide student of **HKBK COLLEGE *of* ENGINEERING**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of the **Visvesvaraya Technological University**, Belagavi, during the year **2024–25**. It is certified that all corrections/suggestions indicated for AICTE Activity Points have been incorporated in the report deposited in the departmental library.

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CERTIFICATE

CERTIFICATE OF COMPLETION

This is to certify that the below students of **HKBBK College of Engineering**, in partial fulfilment for the Bachelor of Engineering in computer Science Engineering during 2023-24 is certified of conduction of **Facilitating 100% digitized money transaction** as per the AICTE's points program.

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DECLARATION

I hereby declare that the AICTE activity work entitled as “**FACILITATING 100% DIGITALIZED MONEY TRANSACTION**” is a record of an original work done by me under the guidance of Prof. HUSNA TABASSUM, Department of Computer Science and Engineering, HKBK College of Engineering, and this activity work is submitted in the partial fulfillment of the requirements for the award of the degree of Bachelor of Engineering in Computer Science and Engineering. The result embodied in this has not been submitted to any other University or Institute for the award of any degree.

1HK21CS063

KAVYA R NAIK

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1HK21CS063 KAVYA R NAIK

HKBK COLLEGE OF ENGINEERING

VISION

To empower students through wholesome education and enable the students to develop into highly qualified and trained professionals with ethics and emerge as responsible citizen with broad outlook to build a vibrant nation

MISSION

- To achieve academic excellence in science, engineering and technology through dedication to duty, innovation in teaching and faith in human values.
- To enable our students to develop into outstanding professional with high ethical standards to face the challenges of 21st century.
- To provide educational opportunities to the deprived and weaker section of the society to uplift their socio-economic status.

DEPARTMENT VISION AND MISSION

VISION

To advance the intellectual capacity of the nation and the international community by imparting knowledge to graduates who are globally recognized as innovators, entrepreneur and competent professionals.

MISSION

- To provide excellent technical knowledge and computing skills to make the graduates globally competitive with professional ethics.
- To involve in research activities and be committed to lifelong learning to make positive contributions to the society.

PROGRAM OUTCOMES(POs)

- PO-1. Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO-2. Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO-3. Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO-4. Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO-5. Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO-6. The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO-7. Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO-8. Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO-9. Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO-10. Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change

PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO-1. Problem-Solving Skills: An ability to investigate and solve a problem by analysis, interpretation of data, design and implementation through appropriate techniques, tools and skills.

PSO-2. Professional Skills: An ability to apply algorithmic principles, computing skills and computer science theory in the modelling and design of computer-based systems.

PSO-3. Entrepreneurial Ability: An ability to apply design, development principles and management skills in the construction of software product of varying complexity to become an entrepreneur.

ABSTRACT

Digital transactions, enabled by technologies like debit/credit cards, mobile wallets, and net banking, are transforming the financial landscape, particularly in rural India. The Government of India's Digital India initiative aims to empower rural communities by promoting digital literacy and establishing a robust digital infrastructure. This is crucial for a country where a significant portion of the population resides in rural areas and agriculture remains a primary livelihood.

Digital payments offer numerous benefits to rural communities, including enhanced financial inclusion, improved efficiency, and market connectivity. They facilitate easier access to financial services, reduce time and effort required for transactions, and connect farmers to wider markets, enabling them to sell their produce at better prices. Additionally, direct benefit transfers through digital channels can minimize leakages and corruption.

The awareness program conducted in Bangalore, which focused on educating individuals about the benefits and best practices of digital money transactions, is a step towards digital empowerment. By emphasizing safety, convenience, and the importance of safeguarding personal information, the initiative successfully engaged small businesses and individuals.

However, Digital transactions have the potential to revolutionize rural India by empowering individuals, improving economic efficiency, and promoting financial inclusion. By addressing the challenges and implementing effective strategies, India can harness the power of digital technology to create a more prosperous and equitable future.

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CHAPTER – 1

INTRODUCTION

1.1. DIGITAL TRANSACTIONS

Digital transactions are defined as those where customers authorize the transfer of money through electronic means, facilitating a direct fund flow between accounts held in banks or with other entities/providers. These transfers can occur via debit/credit cards, mobile wallets, mobile apps, net banking, Electronic Clearing Service (ECS), National Electronic Fund Transfer (NEFT), Immediate Payment Service (IMPS), pre-paid instruments, or similar mechanisms.

The Government of India launched the **Digital India** initiative in 2015 to establish a robust digital infrastructure aimed at empowering rural communities and promoting digital literacy. With 70% of India's population residing in rural areas (as per the 2011 census) and agriculture providing a livelihood for 50% of the population, Digital India holds significant potential to revolutionize the agriculture sector and rural economy.

Digital Payment Market Report 2023–2032 By Marketresearch.Biz



Figure 1: Digital Transactions across Worldwide

Objectives of Digital Transactions

1. **Ease of Transactions:** Simplify the process for individuals to conduct card/digital transactions.
2. **Reduced Risks:** Minimize the risks and costs associated with handling physical cash at both individual and macroeconomic levels.
3. **Financial Inclusion:** Build transaction histories to enable better credit access and promote financial inclusion.
4. **Economic Efficiency:** Reduce tax avoidance, mitigate the circulation of counterfeit money, and lower cash management costs in the economy.

5. **Digital Access:** Ensure every citizen has access to financial payment services and the ability to conduct digital transactions.
6. **Government Integration:** Digitize government collections by equipping collection points with facilities to accept digital payments.
7. **Cashless Economy:** Promote a shift from cash-dominated transactions to digital alternatives by incentivizing digital payments and disincentivizing cash-based ones.
8. **Infrastructure Development:** Enhance the acceptance infrastructure to foster widespread adoption of digital transactions.

1.2. IMPACT ON RURAL COMMUNITIES AND AGRICULTURE

Empowering Rural Populations

The Digital India initiative aims to make digital transactions accessible and user-friendly for rural people. Farmers and rural entrepreneurs can leverage digital payments to reduce cash flow errors in their businesses. The initiative emphasizes the importance of educating users about safeguarding personal information, such as One-Time Passwords (OTPs), to protect them from fraud.

Benefits for Agriculture

1. **Market Connectivity:** Digital platforms can connect farmers with markets across the country, enabling better price realization and reducing intermediary costs.
2. **Increased Productivity:** Direct cash transfer systems can replace agricultural subsidies, leading to improved agricultural productivity and reduced farmer debt burdens.
3. **Data-Driven Targeting:** Integration of digital and data infrastructure can ensure subsidies are validated and targeted, increasing farm profitability and encouraging investments in agriculture.
4. **Knowledge Sharing:** Platforms like **Digital Green** use participatory videos where farmers share best practices with their peers. This cost-effective approach leverages trust and relatability among farmers.

Financial Tools for Farmers

Mobile money and initiatives like **PM Jan Dhan Yojana** and **BHIM** app play a critical role in empowering rural consumers. These platforms allow farmers to bypass poor banking infrastructure and access savings and credit digitally, fostering financial independence and growth.

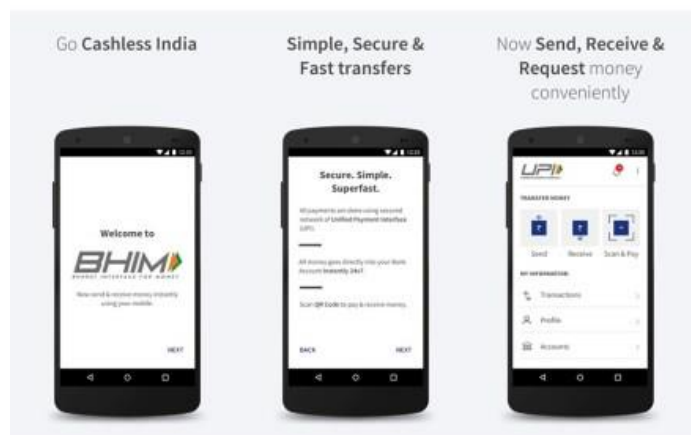


Figure 2 : BHIM Online Transactions

Advantages of Digital Transactions

1. **Convenience:** Online transactions are faster, safer, and more straightforward. Customers can shop, invest, and transfer funds from anywhere.
2. **Efficiency:** Digital payments reduce the need for carrying physical cash, eliminating the associated risks and hassles.
3. **Transparency:** Regular updates, notifications, and statements enable users to track their funds efficiently.
4. **Economic Growth:** Increased adoption of online payments contributes to a robust digital economy, fostering growth in online ventures and businesses.
5. **Cost Reduction:** Handling cash is cumbersome and expensive, both for individuals and for the economy at large. Digital payments streamline this process significantly.

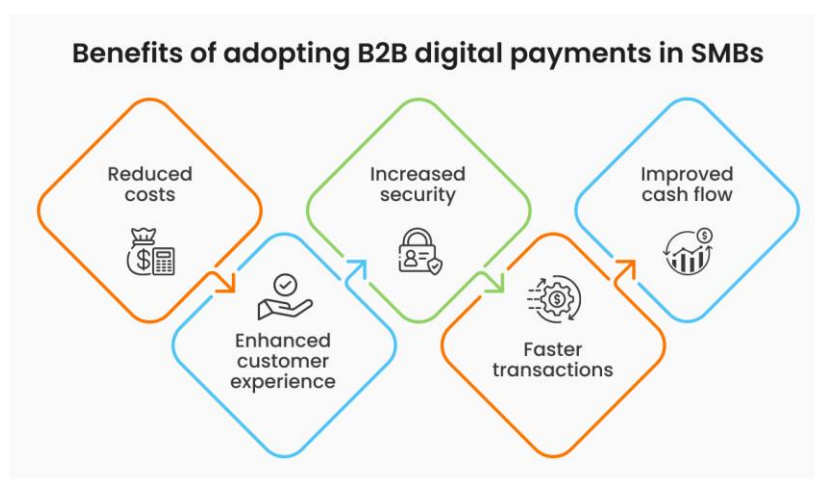


Figure 3 : Benefits of Online Money Transfer

Challenges to Digital Adoption in India

Despite the benefits, India remains largely cash-driven, with only 5% of payments taking place electronically. Key challenges include:

1. **Limited Access:** A significant portion of the population lacks access to online banking.
2. **Cash Dependency:** Both small and large transactions continue to rely on cash.
3. **Consumer Behaviour:** Surveys indicate that over 90% of transactions in Indian malls and 60% of e-commerce transactions (via cash-on-delivery) are cash-based, reflecting a cultural reliance on cash.
4. **Infrastructure Gaps:** Rural areas often face inadequate digital payment infrastructure and connectivity issues.



Figure 4 : Challenges faced by Online Transactions

Policy Recommendations

1. **Incentivize Digital Payments:** Offer tax rebates or discounts for using digital payment methods.
2. **Improve Infrastructure:** Enhance internet connectivity and digital payment acceptance points in rural areas.
3. **Promote Awareness:** Launch educational campaigns to build trust in digital transactions and educate users about online security.
4. **Targeted Subsidies:** Use digital platforms for direct benefit transfers to ensure efficient and transparent subsidy allocation.
5. **Collaborate with Stakeholders:** Partner with banks, fintech companies, and NGOs to develop user-friendly solutions tailored for rural users.

Digital transactions offer immense potential to transform India's rural economy, reduce dependency on cash, and drive economic growth. By addressing existing challenges and implementing targeted policies, the government can ensure that the benefits of digitalization reach every corner of the country, empowering farmers, reducing costs, and fostering financial inclusion.

CHAPTER — 2

PROJECT IMPLEMENTATION

2.1 OBJECTIVES OF THE ACTIVITY

i. To Spread Awareness on Digital Money Transactions:

Organize activities to educate people on sending or receiving money with zero fees, directly from their bank accounts. Online transfers allow users to send money via internet-enabled devices, simplifying financial interactions. This awareness program aims to:

1. Highlight the safety, speed, and convenience of transferring money online without visiting banks.
2. Promote the use of digital applications for economic growth and digitalization.
3. Address myths, resolve doubts, and eliminate digitalization barriers.

ii. To Help People Understand the Working of Digital Money Transactions:

Educate people on the process of digital transactions, including:

1. Using platforms like **BHIM (Bharat Interface for Money)** for cashless payments.
2. Demonstrating steps for linking bank accounts and securely using mobile apps for transactions.
3. Explaining how Unified Payments Interface (UPI) simplifies instant money transfers across bank accounts.

iii. To Raise Awareness About OTP Sharing and Online Fraud Prevention:

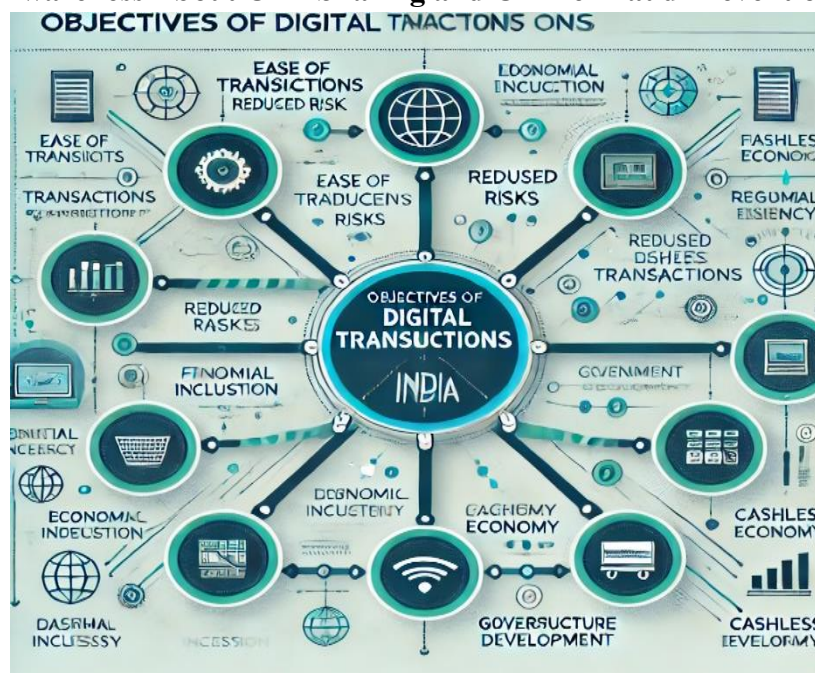


Figure 5 : Main Objectives of Digitalisations

Focus on educating users about safeguarding their accounts by:

1. Avoiding the sharing of One-Time Passwords (OTPs) or other sensitive information.
2. Highlighting risks like SIM card duplication and fraudulent changes to registered mobile numbers.
3. Promoting secure practices to deter criminals attempting to bypass OTP-based authentication.

2.2 PRECAUTION

1. Never disclose your OTP and PIN number to any person.
2. No Bank or other institution will ask for credentials like OTP, PIN, CVV number or other credentials.
3. If you give these credentials to any one, they will siphon money out of your account.
4. Don't attend any call or disconnect calls if the other person asks your OTP, PIN, CVV number or other credentials.
5. If you have installed a True caller and the name displays as a bank manager or the name of your bank, don't believe that caller immediately without probing him.
6. Ask him to talk to you in your mother tongue or tell him that you will visit the branch or ask him multiple questions until you are satisfied it is your real bank manager who is calling you.

2.3 DETAILS OF THE ACTIVITY CARRIED OUT

The first step in this activity was collecting information about digital payment systems. Research was conducted online, and insights were gathered from local businesses, particularly focusing on digital payment practices relevant to small retailers and their customers. This initiative aimed to create awareness about the importance and convenience of digital transactions.

The activity was carried out with the support of the management at Sri Mangunatha Medical and General Stores and RK Medicals in Bangalore. Permissions to conduct the program were granted after consultations with the store owners, who welcomed the idea and recognized its value for their business and customers.

2.4 EXECUTION OF THE AWARENESS PROGRAM

The awareness session began with an informal interaction with customers and store staff, discussing their current payment methods and familiarity with digital transactions. As digital transactions can also be targeted by fraudsters, we highlighted key precautions, including:

1. Never sharing **OTP, PIN, or CVV numbers**.
2. Recognizing fraudulent calls and avoiding scams through Truecaller or other identification apps.
3. Verifying bank calls by insisting on face-to-face conversations or additional checks.

2.5 ADDRESSING CONCERNS AND FEEDBACK

The session concluded with a Q&A segment, where customers and store employees raised doubts, such as the complexity of usage for elderly users. Alternative solutions, such as step-by-step guides and assisted transactions, were proposed.

The feedback collected was overwhelmingly positive:

1. Almost **90%** of participants used online payments method to do the payment.
2. About **96%** appreciated the survey we made and said that the information provided was useful.
3. Many found the communication effective, as we used **Kannada** to ensure clarity and connection.
4. Many of them were made aware of detecting the fraud calls using truecaller and identifying apps and said that they were useful in identifying spams.

2.6 RELEVANCE TO SOCIETY

This initiative was significant for small businesses like medical and general stores, where cash transactions are predominant, and digital payments are still gaining traction. The program provided practical solutions to improve business efficiency while enhancing customer convenience. It also contributed to the broader goal of **digital literacy** in urban settings like Bangalore.



Figure : 6 Creating awareness about Digitalization

The awareness activity successfully demonstrated the benefits of digital payments to customers and store staff. It bridged the gap between traditional payment methods and modern digital solutions, helping participants embrace a faster, safer, and more convenient way to handle money.

Through this initiative, businesses like Sri Mangunatha Medical and General Stores and RK Medicals are now better equipped to adopt digital payment systems, contributing to the broader goal of creating a cashless economy. Customers, too, are more informed and confident in using these technologies, ensuring a safer and more efficient payment experience.

This awareness program on digital payments is highly relevant to society, especially in urban areas like Bangalore, where modernization and convenience are key.

1. **Empowering Small Businesses:** Small businesses such as Sri Mangunatha Medical and General Stores and RK Medicals benefit significantly from digital payments by reducing dependency on cash, improving transaction efficiency, and attracting more customers who prefer cashless methods.
2. **Financial Inclusion and Digital Literacy:** By educating individuals on how to use digital payment systems, the activity promotes financial inclusion and enhances digital literacy, equipping people with essential skills to navigate modern technologies confidently.
3. **Convenience and Safety:** Digital payments eliminate the need for carrying cash, making transactions more secure and hassle-free. Educating participants about fraud prevention (e.g., not sharing OTPs or PINs) ensures trust and safety in digital transactions.
4. **Economic Growth and Transparency:** Encouraging the adoption of digital payment systems supports the government's push for a **cashless economy**, fosters transparency, and improves cash flow for businesses, contributing to overall economic growth.

2.7 SNAPSHOTS OF THE ACTIVITY



Figure 7 : Fueling up for the day at L J Bangalore Iyengar's Bakery in HBR Layout.



Figure : 8 Paying digitally at L J Bangalore Iyengar's Bakery - easy and convenient!

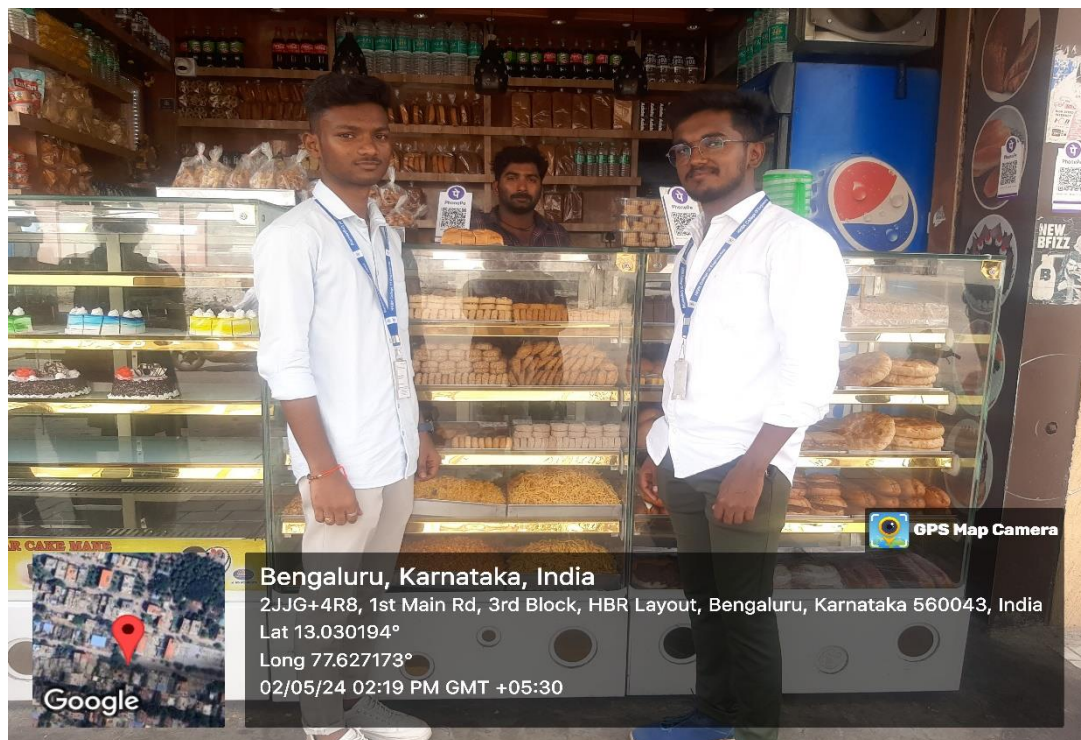


Figure : 9 Trying out digital payments at the bakery - seamless and secure.



Figure : 10 Digital payments made easy at Nagawara Main Road. Join the cashless revolution!

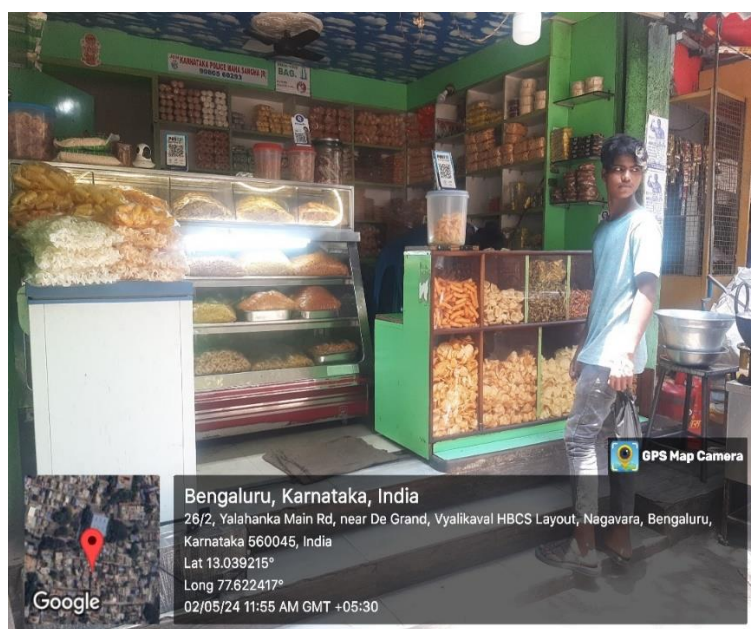


Figure 11 : Digitizing for a better future at 26/2, Yalahanka Main Road.



Figure 12 : Faster checkout, sweeter treats. Digital payments at your favorite bakery!



Figure 13 : Digital payments: The icing on the cake for a seamless experience.



Figure 14 : Digital payments: The icing on the cake for a seamless experience.



Figure 15 : Digital transactions: Making your bakery run smoother.



Figure 16 : Digital transactions: Easy baking, easy paying!



Figure 17 : Digital transactions: Fast, secure, and convenient.

CONCLUSION

The activity will help the local farmers to transfer and receive the money from the digital money transfer app. They can have their bank account literally in their pockets. Rural people are modernized and even digitalized from this activity. Farmer can bring the fertilizers and the agricultural stuff by paying online. Farmers now know how to use digital transfer of money and they know it is easy, speed, safer and happens within the moment. Farmers have the basic knowledge about digital money transfer which is helpful for them. People are given the basic precaution steps that they should not share OTP, PIN, CVV etc. People are now aware of using digital money transfer and take advantage of it. They better know how to stay away from the fraudsters and take a good use of digital apps.

People are satisfied with the awareness activity and met their expectation. The program has been successfully conducted and it was easily convinced to the people to take up the digital money transfer.