

PETRO BUDDY MANAGEMENT SURVEY REPORT

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ABSTRACT

This project presents the development of "PetroBuddy," a comprehensive web application designed to streamline the management of creditors for petrol pump businesses. The application aims to enhance financial transparency and operational efficiency by automating key processes associated with creditor management and balance sheet oversight.

Key features include real-time tracking of outstanding balances, automated transaction recording, and generation of detailed financial reports. The platform facilitates effective communication between petrol pump owners, managers, and creditors, thereby minimizing errors and delays in payment processing. By addressing the specific challenges faced in the petrol retail sector, PetroBuddy provides a userfriendly interface that empowers users to make informed financial decisions and maintain accurate records.

Through a combination of intuitive design and robust functionality, this project seeks to transform traditional practices in creditor management, ultimately contributing to the sustainable growth of petrol pump businesses.

I. INTRODUCTION

This survey was conducted to gather comprehensive feedback on the proposed **Petro buddy Management System (PDMS)**. The petrol pump industry plays a vital role in the economy, serving as a crucial link between fuel suppliers and consumers. However, managing financial transactions, particularly with creditors, can be a complex and time consuming process. Petrol pump owners and managers often face challenges related to tracking outstanding debts, ensuring timely payments, and maintaining accurate financial records. These challenges can lead to inefficiencies, financial discrepancies, and strained relationships with creditors.

In response to these challenges, this project introduces "PetroBuddy," a web-based application designed to simplify and optimize creditor management for petrol pump businesses. By leveraging technology, PetroBuddy aims to automate and streamline various financial processes, providing users with an intuitive platform to manage their accounts more effectively. The application will not only enhance the accuracy of financial reporting but also improve communication between petrol pump operators and their creditors.

This introduction outlines the necessity for a dedicated solution in the petrol pump sector, emphasizing the potential of PetroBuddy to address current operational hurdles. As the industry evolves, embracing digital tools for financial management is essential for sustaining growth, improving cash flow, and fostering positive relationships with creditors. Through this project, we aim to empower petrol pump businesses with the resources needed to navigate their financial landscapes more efficiently.

The survey targeted a diverse group of participants from 10 different colleges, representing a wide variety of courses, branches, and academic backgrounds. The colleges involved spanned across multiple cities, including institutes like **Haldia Institute of Technology, JIS College of Engineering, Sandip University, Shivalik College of Engineering**, and others. The participants were mostly **students (59 respondents)**, with two faculty members also contributing their perspectives.

This diversity was important for ensuring that the survey should be done in proper way and efficiently. By involving students from fields like **Engineering, Pharmacy, Data Science, AIML, and Arts**, as well as branches such as **Civil Engineering, cyber security, BAFF, Commerce etc.**

II. SURVEY OBJECTIVES

The objectives of the survey were carefully designed to address the key features of the proposed PBMS, ensuring that each aspect of the system aligned with the needs of the potential users. Specifically, the survey aimed to explore ten core areas:

1. Identify Challenges: To understand the specific challenges faced by petrol pump owners and managers in managing creditor accounts and maintaining financial records.

2. Assess Current Practices: To evaluate the current methods and tools used for creditor management and financial reporting, including their effectiveness and limitations.
3. Gather Feature Preferences: To collect input on desired features and functionalities of a digital solution that would improve creditor management and balance sheet oversight.
4. Evaluate Technology Adoption: To assess the willingness and comfort level of petrol pump businesses in adopting new technologies for financial management.
5. Understand Communication Needs: To explore how petrol pump operators currently communicate with creditors and identify improvements that could enhance these interactions.
6. Determine Reporting Requirements: To gather insights on the types of financial reports that petrol pump managers find most useful for decision-making and monitoring financial health.
7. Identify Training and Support Needs: To ascertain what kind of training or support petrol pump staff would require to effectively utilize a new digital tool for creditor management.
8. Gauge Interest in Digital Solutions: To evaluate the overall interest and potential market demand for an application like PetroBuddy among petrol pump businesses.
9. Measure Impact of Automated Solutions: To understand how automated reminders and reporting could influence payment compliance and operational efficiency for petrol pump businesses.
10. Explore Pricing Sensitivity: To investigate how much petrol pump businesses would be willing to invest in a solution that improves their creditor management processes.

By addressing these objectives, the survey results provide a comprehensive understanding of the users' needs, guiding the development of an PBMS that integrates both traditional and modern functionalities.

III. METHODOLOGY

The survey was distributed via Google Forms, receiving responses from:

• **58 participants** in total:

o **58 students** o

The survey included participants from the following **10 colleges**:

1. Haldia Institute of Technology
2. A.P. Shah Institute of Technology, Thane
3. Bhawani Prasad Pandey College, Gorakhpur
4. JIS College of Engineering, Kalyan
5. Rizvi College of Engineering
6. Sandip University, Nashik
7. Sandip Institute of Technology and Research Centre, Nashik
8. Shivalik College of Engineering, Dehradun
9. Sandip Institute of Engineering and Management, Nashik
10. Agra College, Agra

Courses of the Respondents:

- B.Tech
- BCA
- B.E
- Pharmacy
- B. Ed
- BBA

Branches:

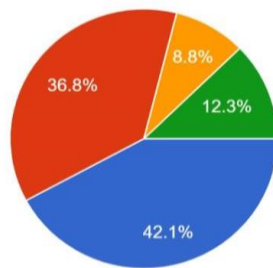
- Civil Engineering
- Computer Science and Engineering
- Cyber security and Forensic Science
- Commerce

- Aerospace
- AI & ML
- Data Science
- Arts

IV. SURVEY QUESTIONS AND RESULTS

1. What is the biggest challenge you face in managing creditors accounts?

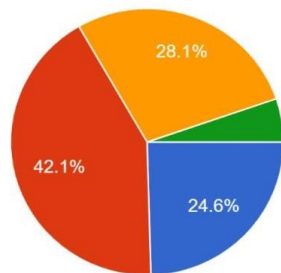
57 responses



- A) Tracking outstanding balances
- B) Recording and organizing transactions
- C) Generating accurate reports
- D) Communicating payment terms with creditors

2. How do you currently manage the petrol pump's financial records?

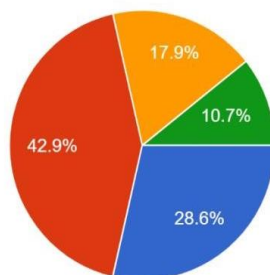
57 responses



- A) Manually (notebook or ledger)
- B) Spreadsheet (Excel, Google sheets)
- C) Accounting software
- D) Don't use a dedicated system

3. Which of the following issues do you encounter with your current system?

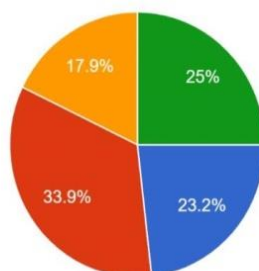
56 responses



- A) It's time consuming
- B) Prone to errors
- C) Lacks real-time data
- D) Difficult to access past records

4. What financial information do you check most frequently?

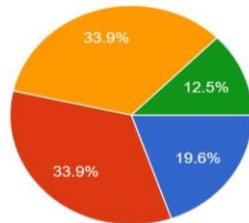
56 responses



- A) Outstanding balances with creditors
- B) Daily sales summary
- C) Payment history with creditors
- D) Monthly/annual financial summary

5. What is your biggest priority in managing creditor accounts?

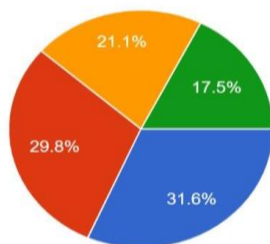
56 responses



- A) Minimizing errors
- B) Speeding up transaction recording
- C) Ensuring payment compliance from creditors
- D) Accessing real-time financial data

6. How important is it for you to have a mobile-accessible platform for managing accounts?

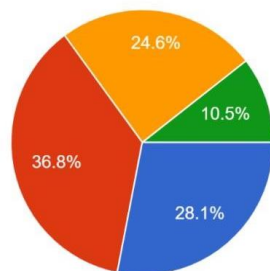
57 responses



- A) Extremely important
- B) Important
- C) Somewhat important
- D) Not important

7. How useful would automated reminders for due payments be for your operations?

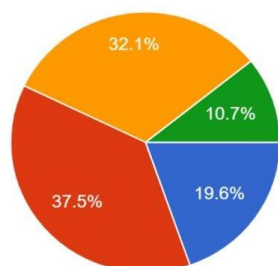
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- A) Extremely useful
- B) Somewhat useful
- C) Neutral
- D) Not useful at all

8. How do you currently handle transaction discrepancies?

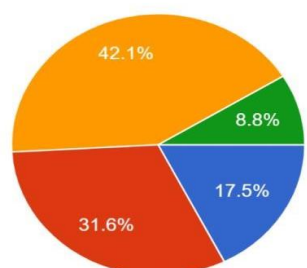
56 responses



- A) Manually cross-check records
- B) Wait for monthly reviews/audits
- C) Contact creditors directly
- D) Rely on accountant's intervention

9. How often do you need to contact creditors for payment status or updates?

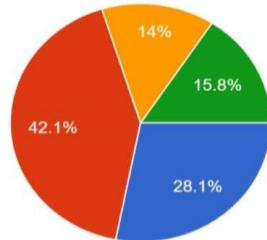
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- A) Daily
- B) Weekly
- C) Monthly
- D) Rarely

10. How often do you need to refer to historical transaction data with creditors?

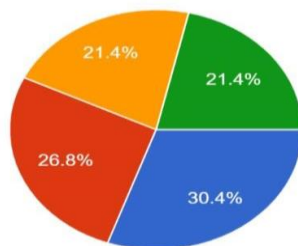
57 responses



- A) frequently (daily or weekly)
- B) Occasionally (monthly)
- C) Rarely
- D) Never

11. How secure do you feel with your current financial record-keeping method?

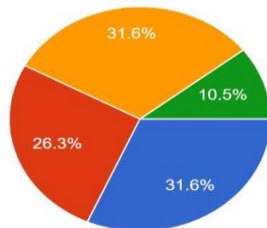
56 responses



- A) Very secure
- B) Somewhat secure
- C) Neutral
- D) Insecure

12. Which of the following would be most valuable in a creditor management tool?

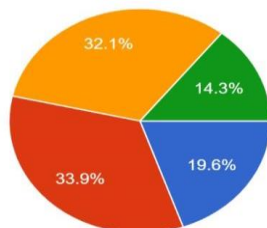
57 responses



- A) Detailed analytics and insights
- B) Customize reports
- C) Real-time updates and alerts
- D) Simplified transaction entry and editing

13. How much time do you currently spend on managing creditor accounts daily?

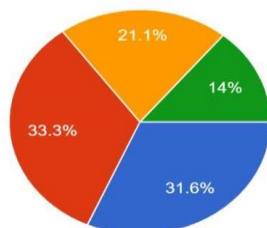
56 responses



- A) Less than 1 hour
- B) 1-2 hours
- C) 2-3 hours
- D) More than 3 hours

14. Would having an online platform to view and update creditor accounts be beneficial?

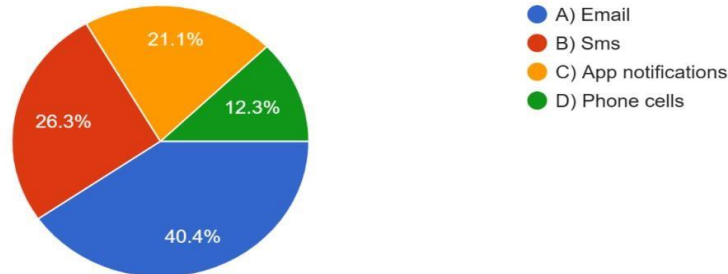
57 responses



- A) Very beneficial
- B) Somewhat beneficial
- C) Neutral
- D) Not beneficial

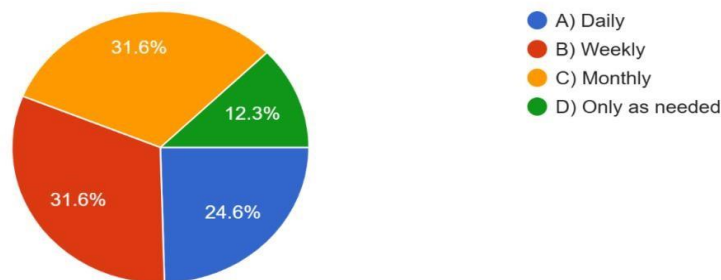
15. What method would you prefer for receiving updates or notifications about balances?

57 responses



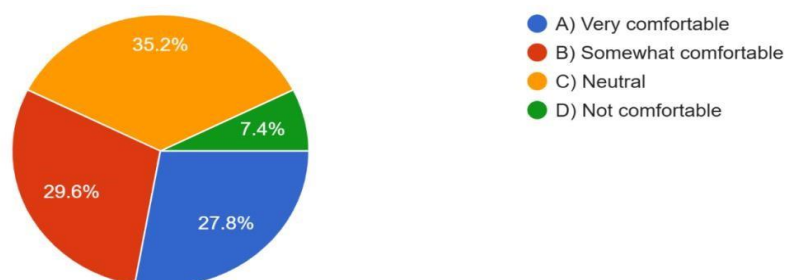
16. How often would you want an updated statement or balance report?

57 responses



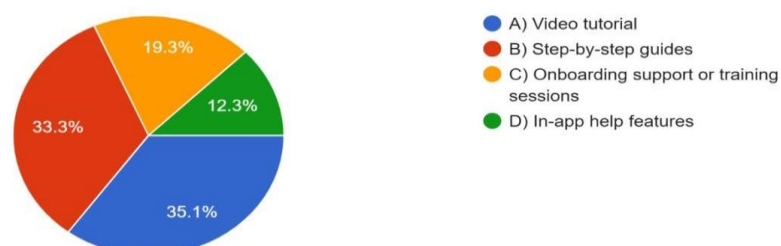
17. How comfortable are you with using technology to manage financial records?

54 responses



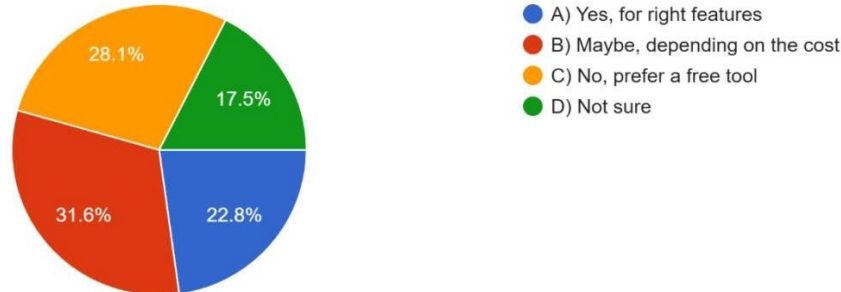
18. What type of training or support would you find most helpful if using a new digital tool?

57 responses



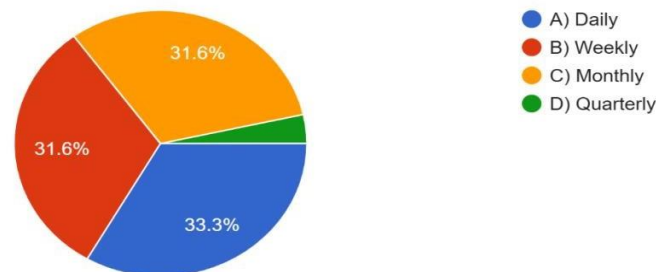
19. Would you be willing to pay for a tool that simplifies creditor and balance sheet management?

57 responses



20. What is your preferred payment or invoicing frequency with creditors?

57 responses



V. ANALYSIS OF RESULTS

The survey gathered valuable insights into how respondents perceive the **Petro buddy Management System (PBMS)** and its key features.

1. User Authentication

- Secure login system for petrol pump owners, managers, and creditors.

2. Dashboard Overview

- A user-friendly dashboard that summarizes key metrics, such as total outstanding balances, recent transactions, and alerts.

3. Creditor Management

- Ability to add, edit, and delete creditor profiles, including contact information and payment terms.

4. Transaction Recording

- Simple interface for recording transactions, including payments received and expenses incurred.

5. Balance Sheet Management

- Tools for generating and maintaining balance sheets with real-time updates on assets, liabilities, and equity.

6. Automated Reminders and Notifications

- Customizable reminders for upcoming payments due, ensuring creditors are notified on time.

7. Reporting and Analytics

- Generation of customizable reports, including transaction history, creditor balances, and performance metrics.

8. Mobile Access

- Mobile-friendly design or a dedicated app for on-the-go access to financial information.

9. Search and Filter Functionality

- Easy search and filter options for transactions and creditor information to enhance usability

10. Data Security

- Strong data protection measures, including encryption and regular backups, to safeguard sensitive financial information.

11. Integration with Accounting Software

- Options to integrate with popular accounting tools for seamless financial management.

12. User Support and Resources

- Access to FAQs, tutorials, and customer support to assist users in navigating the platform.

Goals**1. Improve Financial Management**

- Streamline the process of managing creditor accounts and maintaining balance sheets to reduce errors and save time.

2. Enhance Communication

- Foster better communication between petrol pump owners and their creditors through automated notifications and reminders.

- 3. Increase Transparency** ○ Provide clear visibility into financial transactions and creditor balances to promote trust and accountability.

4. Support Decision-Making

- Equip users with analytics and reporting tools that aid in strategic decision-making and financial planning.

5. Boost Productivity

- Reduce the administrative burden on petrol pump owners and managers, allowing them to focus on core business operations.

- 6. Encourage Adoption of Digital Tools** ○ Facilitate the transition from manual record-keeping to a digital platform, improving overall efficiency.

7. Foster User Engagement

- Create an intuitive and engaging user experience to encourage regular use of the application.

VI. CONCLUSION

Based on the survey results, it is evident that the proposed **Petro buddy Management System** addresses several key needs of its potential users, aligning well with current trends in library and academic resource management.

The development of the PetroBuddy application aims to address the unique challenges faced by petrol pump owners and managers in managing creditor accounts and maintaining financial records. By incorporating user-centered features such as streamlined creditor management, automated reminders, and robust reporting tools, PetroBuddy not only simplifies financial management but also enhances operational efficiency.

The goals of improving financial transparency, fostering better communication, and supporting informed decision-making position PetroBuddy as a vital tool in the petrol pump industry. As businesses increasingly shift towards digital solutions, PetroBuddy will facilitate this transition, enabling users to manage their finances more effectively and concentrate on growing their operations.

By continuously adapting to user feedback and incorporating innovative features, PetroBuddy can remain relevant and valuable, ensuring a positive user experience. The commitment to enhancing productivity and transparency will ultimately contribute to the success and sustainability of petrol pump businesses, making PetroBuddy an indispensable partner in their financial management journey.

With these features and goals in place, PetroBuddy is poised to make a significant impact, helping users navigate their financial landscape with confidence and ease.

VII. REFERENCES

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