Collection Strategies and Customer Engagement on Loan Recovery in Selected Commercial Banks in Sta. Rosa, Laguna: Inputs to A Credit Risk Management Plan

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ABSTRACT

Commercial banks rely on effective loan recovery systems to maintain financial stability, reduce non-performing loans, and sustain profitable lending operations. However, limited empirical evidence has examined the combined influence of collection strategies and customer engagement on loan recovery in the Philippine commercial banking sector. This study assessed the implementation of collection strategies and customer engagement practices among selected commercial banks in Sta. Rosa, Laguna, and examined their relationship as a basis for developing a Credit Risk Management Plan. A quantitative descriptive-correlational research design was employed involving **140 respondents**, comprising branch managers, account officers, and loan clients from **28 commercial bank branches**. Data were analyzed using frequencies, percentages, weighted means, Analysis of Variance (ANOVA), and Pearson Product-Moment Correlation. Results revealed that collection strategies were implemented at a high level, particularly preventive collection measures, legal and ethical recovery practices, payment reminder mechanisms, and data analytics. Customer engagement was likewise positively assessed, with proactive communication, digital engagement, and customer feedback emerging as key strengths, although financial literacy programs received comparatively lower ratings. Correlation analysis demonstrated a significant positive relationship between collection strategies and customer engagement, indicating that stronger customer engagement supports more effective loan recovery. The proposed Credit Risk Management Plan, integrating preventive collection systems, customer-centered engagement, financial literacy, data analytics, and ethical recovery practices, was evaluated as highly acceptable. The study concludes that integrating operational collection strategies with sustained customer engagement enhances loan recovery performance, strengthens credit risk management, and promotes the long-term sustainability of commercial banking operations.

Keywords: collection strategies, customer engagement, loan recovery, credit risk management, commercial banks, Philippines

INTRODUCTION

Commercial banks play a vital role in economic development by providing credit that supports business expansion, consumer spending, and investment. The sustainability of these institutions depends largely on effective credit risk management, particularly their ability to recover loans while maintaining portfolio quality and financial stability. As lending activities continue to expand in rapidly growing economic centers such as Sta. Rosa, Laguna, banks face increasing challenges arising from borrower delinquency, evolving customer expectations, and a more complex regulatory environment.

Traditionally, loan recovery has relied on structured collection procedures, including preventive monitoring, early delinquency detection, payment reminders, and legal recovery measures. However, contemporary banking recognizes that operational efficiency alone is insufficient to achieve sustainable loan recovery. Increasingly, financial institutions integrate customer engagement practices—such as proactive communication, financial education, relationship management, and digital interaction—to encourage voluntary repayment while preserving long-term borrower relationships.

Technological advancements have further transformed credit management through predictive analytics, automated collection systems, customer relationship management platforms, and digital banking applications. These innovations enable banks to identify repayment risks earlier, personalize borrower communication, and implement timely interventions that improve collection performance and enhance the customer experience.

In the Philippines, the Bangko Sentral ng Pilipinas continues to strengthen regulatory expectations on responsible lending, ethical collection practices, and effective credit risk management. Despite these initiatives, commercial banks continue to face operational challenges related to borrower responsiveness, inconsistent collection practices, and evolving credit risks, underscoring the need for integrated recovery approaches that combine operational discipline with customer-centered strategies.

Against this backdrop, the present study examines the implementation of collection strategies and customer engagement practices among selected commercial banks in Sta. Rosa, Laguna. Specifically, it evaluates six dimensions of collection strategies and six dimensions of customer engagement, determines their relationship, identifies implementation challenges, and develops an evidence-based Credit Risk Management Plan. By integrating operational and relational perspectives, the study contributes to improving loan recovery performance and strengthening sustainable credit risk management.

Research Gap

Previous studies have established the importance of collection strategies, customer relationship management, financial literacy, and digital banking in improving loan recovery and reducing credit risk. However, these variables have generally been investigated independently, with limited attention given to their combined influence on loan recovery performance. Existing research has primarily emphasized financial indicators, non-performing loans, or customer satisfaction without adequately explaining how operational collection systems and customer engagement interact within commercial banking institutions.

Moreover, empirical evidence focusing on Philippine commercial banks remains limited, as most local studies concentrate on microfinance institutions, rural banks, or general lending practices. Existing research has likewise devoted relatively less attention to relationship-oriented engagement practices—including proactive communication, digital engagement, financial literacy, customer feedback, and loyalty initiatives—as strategic components of credit risk management. Furthermore, few studies have translated empirical findings into comprehensive, evidence-based organizational interventions.

This study addresses these gaps by examining the combined influence of collection strategies and customer engagement on loan recovery among selected commercial banks in Sta. Rosa, Laguna. It further develops a Credit Risk Management Plan grounded in empirical findings, providing practical guidance to strengthen collection effectiveness, reduce credit risk, and promote long-term banking sustainability.

Objectives of the Study

This study aimed to assess the influence of collection strategies and customer engagement on loan recovery among selected commercial banks in Sta. Rosa, Laguna, and to develop an evidence-based Credit Risk Management Plan.

Specifically, the study sought to:

1. Assess the implementation of collection strategies in terms of: Preventive Collection Measures; Early Delinquency Detection Systems; Payment Reminder Mechanisms; Incentive Programs for Prompt Payments; Legal and Ethical Recovery Practices; and Use of Data Analytics in Collections.

2. Determine whether significant differences exist in the respondents' assessment of collection strategies across the three respondent groups.

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3. Evaluate customer engagement practices in terms of: Proactive Communication with Borrowers; Financial Literacy Programs; Relationship Building through Aftercare; Customer Feedback Mechanisms; Digital Engagement; and Loyalty and Retention Initiatives.

4. Determine the significant relationship between collection strategies and customer engagement on loan recovery.

5. Identify the major challenges encountered in implementing collection strategies and customer engagement practices.

6. Develop a Credit Risk Management Plan based on the study findings.

7. Determine the acceptability of the proposed Credit Risk Management Plan among the respondents.

Theoretical Foundation

This study is anchored on **Credit Risk Management Theory** (Saunders & Allen, 2002) and **Relationship Marketing Theory** (Berry, 1983). Credit Risk Management Theory explains that effective loan recovery depends on systematic borrower assessment, continuous monitoring, timely intervention, and structured recovery procedures that minimize credit losses and maintain portfolio quality. Accordingly, preventive collection measures, early delinquency detection, payment reminders, ethical recovery practices, incentive programs, and data analytics serve as essential operational mechanisms for managing credit risk.

Complementing this perspective, Relationship Marketing Theory emphasizes that long-term organizational success depends on building relationships founded on trust, commitment, communication, and mutual value. Within commercial banking, customer engagement practices—including proactive communication, financial literacy, aftercare services, digital engagement, customer feedback, and loyalty initiatives—encourage borrower cooperation, strengthen repayment behavior, and sustain long-term banking relationships.

The integration of these theories provides the study's conceptual foundation by recognizing that effective loan recovery requires both operational efficiency and customer-centered relationship management. Guided by these complementary perspectives, the proposed Credit Risk Management Plan integrates structured collection systems with borrower engagement strategies to enhance repayment performance, reduce credit risk, and strengthen institutional sustainability.

METHODOLOGY

Research Design

This study employed a **descriptive-correlational research design**, using quantitative survey methods, to examine the implementation of collection strategies and customer engagement practices among selected commercial banks in Sta. Rosa, Laguna. The descriptive component was used to determine the extent to which collection strategies and customer engagement initiatives were implemented by the participating banks, while the correlational component examined the relationship between these two major constructs. This design was considered appropriate because the study sought to describe existing organizational practices and determine their statistical association without manipulating any research variables.

The study further incorporated qualitative inputs in identifying the operational challenges encountered by respondents during loan recovery. These qualitative responses complemented the quantitative findings by providing contextual explanations for the statistical results and served as important inputs in developing the proposed Credit Risk Management Plan. The integration of quantitative and qualitative evidence provided a more comprehensive understanding of loan recovery practices within the participating commercial banks.

Research Setting

The study was conducted among selected commercial bank branches operating in **Sta. Rosa City, Laguna**,

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one of the fastest-growing commercial and industrial centers in CALABARZON. The city hosts numerous commercial establishments, industrial parks, residential communities, and business districts that contribute to increasing banking transactions and credit activities. Consequently, commercial banks operating within the locality continuously manage diverse lending portfolios while addressing varying levels of borrower credit risk.

The participating institutions included branches of **Bank of the Philippine Islands (BPI), Banco de Oro (BDO), Metropolitan Bank and Trust Company (Metrobank), Rizal Commercial Banking Corporation (RCBC), UnionBank of the Philippines, Security Bank Corporation, China Banking Corporation, and EastWest Bank**. Twenty-eight commercial bank branches with active lending operations were selected from major commercial areas, including Barangays Balibago, Tagapo, Don Jose, Pulong Santa Cruz, Malusak, and Sto. Domingo, which encompasses business centers such as Nuvali, Greenfield City, and SM City Sta. Rosa. These locations were selected because they represent the city's primary banking and lending environments where loan origination, monitoring, and recovery activities are extensively undertaken.

Respondents and Sampling Procedure

The respondents comprised 140 participants from three stakeholder groups directly involved in the loan recovery process: **28 Branch Managers, 28 Account Officers, and 84 Loan Clients**. Branch Managers were included because they supervise lending operations and oversee credit risk management within their respective branches. Account Officers were selected due to their direct involvement in loan processing, monitoring, collection, and borrower communication. Loan Clients provided the borrower perspective regarding collection strategies and customer engagement practices implemented by their banks. This multi-sector representation enabled the study to obtain balanced perspectives from both organizational and customer stakeholders regarding loan recovery practices.

The study employed **random purposive sampling**. Initially, respondents were purposively selected based on their direct participation in lending, collection, or borrowing activities. Subsequently, qualified participants in each selected branch were randomly selected to minimize selection bias and ensure that respondents had sufficient knowledge and experience relevant to the study's objectives. This sampling procedure strengthened the reliability of the data by combining respondent relevance with random participant selection.

Research Instrument

Data were gathered using a **researcher-developed structured questionnaire**, prepared under the guidance of the research adviser and validated by subject-matter experts and members of the research panel prior to administration. The instrument was specifically designed to measure collection strategies, customer engagement practices, operational challenges, and the acceptability of the proposed Credit Risk Management Plan.

Prior to the study, the questionnaire underwent expert validation to establish its content validity. Necessary revisions were incorporated based on the validators' recommendations to ensure that each item accurately measured the intended construct and aligned with the study objectives.

Data Gathering Procedure

Upon securing approval from the Graduate School and obtaining permission from the participating commercial banks, the researcher coordinated with branch management regarding the schedule for questionnaire administration. The objectives of the study were explained to prospective respondents, and participation remained entirely voluntary throughout the data collection process. Respondents were likewise informed that all responses would remain confidential and would be used solely for academic purposes.

The validated questionnaires were personally distributed to Branch Managers, Account Officers, and Loan Clients who satisfied the study's inclusion criteria. After retrieval, all completed questionnaires were checked for completeness, coded, organized, and subjected to statistical analysis with the assistance of a statistician.

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The analyzed data subsequently served as the basis for interpretation, conclusions, recommendations, and the development of the proposed Credit Risk Management Plan.

Ethical Considerations

The study strictly adhered to accepted ethical principles governing research involving human participants. Institutional permission was secured before data collection commenced. Participation was voluntary, and informed consent was obtained from every respondent prior to completing the questionnaire. Respondents were informed of the purpose of the study, their right to decline participation or withdraw at any stage, and the confidentiality of their responses.

To ensure anonymity, no personally identifiable information was collected during the survey. All responses were treated with strict confidentiality, reported only in aggregated form, and utilized exclusively for academic and research purposes. The researcher likewise observed the principles of integrity, objectivity, beneficence, and respect for participants throughout the investigation.

Statistical Treatment of Data

The data gathered from the respondents were analyzed using appropriate descriptive and inferential statistical techniques.

The percentage was used to describe the demographic characteristics of the respondents by age, sex, civil status, educational attainment, and respondent classification.

The Weighted Mean was employed to determine the respondents' assessments of collection strategies, customer engagement practices, challenges encountered, and the acceptability of the proposed Credit Risk Management Plan.

Analysis of Variance (ANOVA) was used to determine whether statistically significant differences existed among the assessments of Branch Managers, Account Officers, and Loan Clients regarding the implementation of collection strategies.

Pearson Product-Moment Correlation Coefficient was utilized to determine the strength and direction of the relationship between collection strategies and customer engagement practices. Statistical significance was evaluated using the predetermined significance level for the study.

RESULTS AND DISCUSSION

Respondents' Profile

A total of **140 respondents** participated in the study, comprising 28 Branch Managers (20.0%), 28 Account Officers (20.0%), and 84 Loan Clients (60.0%) from 28 selected commercial bank branches in Sta. Rosa, Laguna. The inclusion of these three stakeholder groups provided balanced perspectives from both banking personnel and borrowers regarding collection strategies and customer engagement practices. The respondent distribution further demonstrated adequate representation from major commercial banking institutions, including Banco de Oro, Bank of the Philippine Islands, Rizal Commercial Banking Corporation, Metropolitan Bank and Trust Company, UnionBank, Security Bank, China Banking Corporation, and EastWest Bank. Most respondents were college graduates, predominantly female, and largely belonged to the economically active working-age population, suggesting that the assessments were provided by individuals with sufficient educational background and practical experience relevant to lending and loan recovery operations.

Since the primary objective of the study is to examine organizational practices rather than demographic characteristics, the succeeding discussion focuses on the major research variables.

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Collection Strategies on Loan Recovery

Overall Collection Strategies

The findings indicate that collection strategies were **Highly Evident** (Composite Mean = 4.38), demonstrating that participating commercial banks have established comprehensive loan recovery systems that integrate preventive controls, ethical recovery practices, digital technologies, and data-driven decision-making. Legal and Ethical Recovery Practices received the highest evaluation, followed by the Use of Data Analytics in Collections, highlighting the banking sector's growing emphasis on regulatory compliance, transparency, and technology-enabled credit management. Although Preventive Collection Measures and Early Delinquency Detection Systems obtained comparatively lower ratings, they remained positively evaluated, suggesting opportunities to strengthen proactive borrower monitoring before repayment difficulties escalate.

The results imply that effective loan recovery depends on integrating operational efficiency, technological capability, and customer-oriented recovery practices rather than on isolated collection activities. These findings support **Credit Risk Management Theory**, which emphasizes continuous monitoring and timely intervention to minimize credit risk. They likewise align with recent studies emphasizing that ethical governance and predictive analytics improve collection performance through earlier risk identification and more informed decision-making.

Preventive Collection Measures

Preventive Collection Measures were assessed as **Highly Evident** (Composite Mean = 4.20), indicating that participating banks consistently implement proactive activities such as borrower evaluation, account monitoring, and early follow-up to reduce future delinquency. Although this dimension ranked fifth among the collection strategies, the findings demonstrate that prevention remains an integral component of credit risk management.

The higher ratings provided by Branch Managers and Account Officers reflect their direct involvement in preventive monitoring systems, whereas borrowers may have limited awareness of these internal processes. The findings reinforce **Credit Risk Management Theory**, which recognizes early risk identification and preventive intervention as essential to reducing non-performing loans. They are likewise consistent with studies showing that continuous monitoring and behavioral risk assessment improve repayment performance and strengthen portfolio quality

Early Delinquency Detection Systems

Early Delinquency Detection Systems obtained a composite mean of **4.15 (Evident)**, representing the lowest-rated collection strategy dimension. Nevertheless, the results confirm that participating banks have established mechanisms for identifying repayment risks before accounts become seriously delinquent. The relatively lower assessment suggests opportunities to further enhance predictive monitoring, behavioral scoring, and automated early warning systems.

The variation between the assessments of banking personnel and borrowers reflects the internal nature of these monitoring activities, which are generally more visible to employees responsible for credit management than to loan clients. The findings support **Credit Risk Management Theory**, which emphasizes that continuous monitoring and timely intervention reduce credit losses by addressing repayment concerns before they develop into defaults. They are likewise supported by recent literature demonstrating that predictive analytics and early risk detection strengthen loan recovery through timely and targeted collection strategies

Payment Reminder Mechanisms

Payment Reminder Mechanisms obtained a composite mean of 4.23 (Highly Evident), indicating that participating commercial banks consistently utilize reminders to promote timely loan repayment and reduce delinquency. The findings demonstrate that automated notifications, digital alerts, and follow-up communications remain essential tools for reinforcing repayment discipline and maintaining continuous borrower engagement.

The relatively higher assessments from Branch Managers and Account Officers suggest strong institutional implementation, whereas the lower ratings from Loan Clients indicate opportunities to enhance the visibility and personalization of reminder systems. These findings support Relationship Marketing Theory, which emphasizes that consistent communication strengthens trust and cooperation between organizations and customers. They likewise align with recent studies reporting that timely digital reminders improve borrower awareness, encourage prompt payments, and enhance loan recovery performance

Incentive Programs for Prompt Payments

Incentive Programs for Prompt Payments were assessed as **Highly Evident** (Composite Mean = 4.48), ranking third among the collection strategy dimensions. The results indicate that participating banks complement conventional collection procedures with positive reinforcement, including preferential loan terms, repayment incentives, and flexible repayment arrangements that encourage voluntary compliance.

The stronger assessments from banking personnel, compared with those from borrowers, suggest that incentive mechanisms are well established in practice but may not be fully recognized by all clients. These findings reinforce **Relationship Marketing Theory**, which proposes that mutually beneficial relationships strengthen customer commitment and long-term cooperation. Consistent with previous research, incentive-based approaches encourage responsible repayment behavior while improving customer satisfaction, loyalty, and sustainable loan recovery

Legal and Ethical Recovery Practices

Legal and Ethical Recovery Practices recorded the highest composite mean (**4.64**), indicating that participating commercial banks consistently prioritize regulatory compliance, fairness, transparency, and borrower protection throughout the recovery process. The findings demonstrate that ethical governance has become a fundamental component of effective credit risk management, strengthening institutional credibility while reducing legal and reputational risks.

The consistently favorable evaluations across respondent groups suggest broad recognition of responsible recovery practices, although banking personnel perceived stronger implementation than borrowers. These findings support both **Credit Risk Management Theory** and **Relationship Marketing Theory**, highlighting that legal compliance and ethical treatment of borrowers not only protect institutional assets but also promote trust, cooperation, and long-term customer relationships. The results likewise corroborate recent literature emphasizing ethical collection practices as a key driver of sustainable banking performance.

Use of Data Analytics in Collections

The **Use of Data Analytics in Collections** emerged as the second-highest-rated dimension (Composite Mean = **4.56**), demonstrating the extensive integration of predictive analytics, borrower segmentation, and real-time monitoring into collection operations. These findings indicate that participating commercial banks increasingly rely on data-driven decision-making to identify repayment risks, prioritize collection activities, and improve operational efficiency.

The lower assessment from Loan Clients reflects the internal nature of analytical processes, which are generally more visible to banking personnel directly involved in credit management. The findings strongly support **Credit Risk Management Theory**, emphasizing evidence-based monitoring and proactive intervention throughout the lending cycle. They also complement **Relationship Marketing Theory**, as analytical tools enable banks to personalize borrower communication and repayment assistance according to individual customer profiles. Consistent with recent banking literature, predictive analytics has become an important strategic capability for improving collection effectiveness, portfolio quality, and long-term financial sustainability.

Significant Difference in the Assessment of Collection Strategies

The Analysis of Variance (ANOVA) results indicate that respondents differed significantly in their assessment of most collection strategy dimensions, except **Preventive Collection Measures**, where perceptions were generally consistent across the three respondent groups. The significant differences observed in Early Delinquency Detection Systems, Payment Reminder Mechanisms, Incentive Programs for Prompt Payments, Legal and Ethical Recovery Practices, and the Use of Data Analytics suggest that organizational roles influence how collection strategies are perceived and experienced.

Branch Managers and Account Officers consistently reported higher levels of implementation than Loan Clients, reflecting their direct involvement in designing, supervising, and executing collection activities. In contrast, borrowers primarily evaluate these strategies based on their personal interactions with the bank, resulting in comparatively lower assessments, particularly for internal processes such as predictive analytics, portfolio monitoring, and regulatory compliance. These findings indicate that many operational collection mechanisms remain less visible to borrowers despite their extensive implementation.

From a managerial perspective, the results highlight the importance of strengthening transparency and borrower awareness regarding modern collection practices. Communicating the purpose of digital monitoring systems, repayment assistance programs, and ethical recovery procedures may improve borrower understanding, foster greater trust, and encourage stronger cooperation during loan repayment. The findings support both **Credit Risk Management Theory** and **Relationship Marketing Theory**, emphasizing that effective credit risk management requires not only sound operational systems but also clear communication and sustained customer engagement to bridge differences in stakeholder perceptions.

Customer Engagement on Loan Recovery

Overall Customer Engagement

Customer engagement was assessed as **Evident** (Composite Mean = 4.18), indicating that participating commercial banks have incorporated relationship-oriented practices into their loan recovery operations. Customer Feedback Mechanisms and Digital Engagement received the highest evaluations, reflecting the increasing use of communication technologies and customer-centered approaches to strengthen repayment behavior and long-term banking relationships. In contrast, Financial Literacy Programs received the lowest rating, suggesting that borrower education remains an area that requires greater institutional attention.

The findings demonstrate that effective loan recovery extends beyond operational collection activities to encompass continuous communication, customer participation, and relationship-building. The lower assessments from Loan Clients, compared with those from banking personnel, indicate opportunities to improve the visibility, accessibility, and consistency of engagement initiatives. These results support **Relationship Marketing Theory**, which emphasizes that sustained customer relationships promote trust, cooperation, and long-term organizational success, while complementing **Credit Risk Management Theory**, which recognizes customer engagement as an important preventive strategy for reducing repayment risk.

Proactive Communication with Borrowers

Proactive Communication with Borrowers obtained a composite mean of 4.34 (Highly Evident), indicating that participating commercial banks consistently maintain communication with borrowers through repayment reminders, account updates, and financial guidance. These practices promote borrower awareness and facilitate early intervention before repayment difficulties become more serious.

The relatively lower assessment from Loan Clients suggests opportunities to enhance communication through greater personalization, responsiveness, and two-way interaction. The findings reinforce Relationship Marketing Theory, highlighting communication as a foundation for trust and cooperation, and are consistent with studies demonstrating that timely borrower communication improves repayment discipline and strengthens customer engagement.

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Financial Literacy Programs for Clients

Financial Literacy Programs for Clients received the lowest overall assessment (Composite Mean = **2.98, Moderately Evident**), indicating that borrower education remains the weakest aspect of customer engagement among the participating banks. Although banking personnel acknowledged financial education initiatives, Loan Clients reported limited exposure to these programs, suggesting gaps in accessibility and implementation.

The findings emphasize the need to strengthen financial capability programs through regular seminars, personalized financial counseling, and digital learning platforms that improve borrowers' budgeting and repayment skills. These results support both **Relationship Marketing Theory** and **Credit Risk Management Theory**, recognizing financial education as a preventive strategy that encourages responsible borrowing, reduces delinquency, and enhances long-term repayment performance.

Relationship Building through Aftercare

Relationship Building through Aftercare was assessed as **Highly Evident** (Composite Mean = **4.38**), demonstrating that participating commercial banks maintain ongoing relationships with borrowers beyond loan approval and repayment. Continuous follow-up and post-loan support strengthen customer satisfaction, institutional trust, and long-term banking relationships.

While banking personnel perceived stronger implementation than Loan Clients, the findings indicate opportunities to standardize aftercare services across branches to ensure more consistent customer experiences. The results support **Relationship Marketing Theory**, which emphasizes continuous customer interaction as a driver of loyalty and organizational success, while reinforcing **Credit Risk Management Theory**, which recognizes long-term borrower relationships as contributing to improved repayment performance and portfolio quality.

Customer Feedback Mechanisms

Customer Feedback Mechanisms received the highest overall assessment (Composite Mean = **4.52, Highly Evident**), indicating that participating commercial banks strongly value borrower feedback to improve service quality and loan recovery practices. The findings indicate that accessible feedback channels and responsiveness to customer concerns have become integral to relationship management and continuous service improvement.

Although banking personnel reported stronger implementation than Loan Clients, the consistently positive assessments suggest that feedback systems promote trust, strengthen borrower cooperation, and provide valuable information for refining collection procedures. These findings support **Relationship Marketing Theory**, which recognizes two-way communication and customer participation as essential to sustaining long-term organizational relationships and enhancing customer satisfaction.

Engagement through Digital Channels

Engagement through Digital Channels was likewise assessed as Highly Evident (Composite Mean = 4.48), highlighting the growing role of digital banking technologies in supporting customer communication and loan recovery. Online platforms, mobile applications, electronic payment systems, and digital notifications enable banks to improve accessibility, repayment convenience, and operational efficiency.

The lower assessment from Loan Clients indicates opportunities to enhance user experience, platform accessibility, and digital support services. The findings reinforce Relationship Marketing Theory, emphasizing that technology-enabled communication strengthens customer relationships by providing timely, convenient, and responsive financial services. They also demonstrate the continuing digital transformation of commercial banking in credit risk management.

Loyalty and Retention Initiatives

Loyalty and Retention Initiatives obtained a composite mean of 4.36 (Highly Evident), indicating that participating banks actively promote long-term borrower relationships through recognition programs, preferential benefits, and customer retention strategies. These initiatives encourage responsible repayment behavior while strengthening customer commitment and institutional loyalty.

The comparatively lower ratings from Loan Clients suggest that greater awareness and communication regarding loyalty programs may further improve customer participation. The findings support Relationship Marketing Theory, which posits that trust, recognition, and mutual value creation foster enduring customer relationships that contribute to sustainable loan recovery and organizational performance.

Significant Relationship Between Collection Strategies and Customer Engagement on Loan Recovery

The Pearson Product-Moment Correlation analysis revealed statistically significant positive relationships between all dimensions of collection strategies and customer engagement, leading to the rejection of the null hypothesis. These findings demonstrate that stronger implementation of collection strategies is consistently associated with higher levels of borrower engagement, confirming that operational collection practices and relationship-oriented initiatives function as complementary components of effective loan recovery.

The results indicate that preventive monitoring, timely communication, ethical recovery practices, incentive programs, and data-driven collection systems become more effective when integrated with proactive customer engagement. Such integration strengthens borrower cooperation, encourages voluntary repayment, and reduces credit risk through a balanced approach that combines operational efficiency with relationship management. The findings provide strong empirical support for both **Credit Risk Management Theory** and **Relationship Marketing Theory**, affirming that sustainable loan recovery depends on the strategic alignment of structured collection systems and customer-centered banking practices.

Relationship Between Preventive Collection Measures and Customer Engagement

The correlation analysis revealed statistically significant positive relationships between **Preventive Collection Measures** and all dimensions of customer engagement. Stronger preventive monitoring was associated with higher levels of proactive communication, digital engagement, customer feedback, aftercare services, financial literacy initiatives, and loyalty programs. The strongest relationship was observed with **Loyalty and Retention Initiatives**, suggesting that early borrower support and continuous monitoring foster long-term customer commitment. These findings support **Credit Risk Management Theory** and **Relationship Marketing Theory**, indicating that preventive collection systems are more effective when complemented by sustained customer engagement.

Relationship Between Early Delinquency Detection Systems and Customer Engagement

Early Delinquency Detection Systems likewise demonstrated significant positive relationships with all customer engagement dimensions. The strongest associations were found with Customer Feedback Mechanisms, Loyalty and Retention Initiatives, and Digital Engagement, indicating that timely identification of repayment risks enables banks to implement responsive and customer-centered interventions. These findings suggest that predictive monitoring is most effective when integrated with continuous communication and relationship-building strategies, reinforcing both Credit Risk Management Theory and Relationship Marketing Theory.

Relationship Between Payment Reminder Mechanisms and Customer Engagement

Payment Reminder Mechanisms were significantly and positively related to all customer engagement dimensions. The strongest relationships with **Digital Engagement** and **Loyalty and Retention Initiatives** indicate that reminder systems have evolved beyond operational collection tools into strategic communication mechanisms that strengthen borrower cooperation and repayment discipline. These findings highlight the

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importance of technology-enabled communication in improving customer engagement and supporting effective loan recovery.

Relationship Between Incentive Programs for Prompt Payments and Customer Engagement

The findings revealed significant positive relationships between **Incentive Programs for Prompt Payments** and all customer engagement dimensions. The strongest association with **Loyalty and Retention Initiatives** demonstrates that positive reinforcement encourages responsible repayment behavior while strengthening long-term customer relationships. These results support the view that incentive-based strategies complement traditional collection procedures by promoting voluntary compliance and enhancing borrower commitment.

Relationship Between Legal and Ethical Recovery Practices and Customer Engagement

Legal and Ethical Recovery Practices exhibited significant positive relationships with all customer engagement dimensions, indicating that responsible and transparent recovery procedures enhance borrower trust and cooperation. Ethical collection practices not only strengthen regulatory compliance but also improve customer confidence, facilitating more constructive communication and repayment negotiations. The findings reinforce the importance of integrating ethical governance into modern credit risk management.

Relationship Between Use of Data Analytics in Collections and Customer Engagement

The Use of Data Analytics in Collections was significantly associated with all customer engagement dimensions, demonstrating that technology-driven collection strategies enhance personalized borrower interaction and timely intervention. Predictive analytics, behavioral scoring, and borrower segmentation enable banks to tailor communication and recovery approaches according to customer risk profiles, thereby improving both collection effectiveness and customer engagement. These findings affirm the growing importance of data-driven decision-making in contemporary banking.

Integrated Discussion of the Correlation Findings

The correlation analyses consistently demonstrate that collection strategies and customer engagement are complementary organizational capabilities that jointly influence loan recovery performance. Across all collection strategy dimensions, stronger operational practices were associated with higher levels of borrower communication, digital engagement, customer feedback, financial literacy, aftercare, and loyalty initiatives. These findings confirm that effective loan recovery extends beyond procedural collection activities and requires integrating operational efficiency with customer-centered relationship management.

The results provide strong empirical support for the study's conceptual framework by affirming that **Credit Risk Management Theory** and **Relationship Marketing Theory** operate synergistically in commercial banking. Preventive monitoring, ethical recovery practices, predictive analytics, payment reminders, and incentive programs become more effective when supported by sustained customer engagement. Consequently, commercial banks should continue to integrate technology, responsible lending practices, and relationship-oriented initiatives into a comprehensive Credit Risk Management Plan to improve repayment performance, reduce credit risk, and strengthen long-term financial sustainability.

Problems Encountered Relative to Collection Strategies and Customer Engagement

Challenges Encountered Relative to Collection Strategies

The respondents assessed the challenges associated with collection strategies as **"Encountered" (Composite Mean = 3.43), indicating that despite the extensive implementation of collection systems, operational constraints continue to affect the effectiveness of loan recovery**. Loan Clients reported the highest level of challenges, suggesting that borrowers experience the consequences of collection practices more directly than banking personnel.

The most significant challenge identified was the impact of external economic conditions, particularly inflation and labor market instability, which adversely affect borrowers' repayment capacity. Organizational concerns, including heavy collection workloads, policy limitations, incomplete borrower information, limited predictive analytics, and inconsistent implementation of collection procedures, were likewise identified as factors that reduce operational efficiency. These findings indicate that successful loan recovery depends not only on internal collection systems but also on organizational adaptability and responsiveness to changing economic conditions. They reinforce **Credit Risk Management Theory**, which emphasizes continuous risk monitoring and timely intervention in managing borrower default risk.

Challenges Encountered Relative to Customer Engagement

Customer engagement challenges likewise obtained an overall assessment of **Encountered** (Composite Mean = **3.71**), indicating that relationship-oriented banking practices continue to face implementation barriers despite their favorable overall evaluation. The findings suggest that borrower responsiveness, communication effectiveness, and customer participation remain important concerns influencing loan recovery performance.

The major challenges involved inconsistent borrower responses, limited participation in financial literacy initiatives, underutilization of digital engagement platforms, delayed resolution of customer concerns, and varying levels of communication effectiveness across borrowers. These findings demonstrate that customer engagement extends beyond the availability of communication channels and requires continuous interaction, trust-building, and personalized support for borrowers. The results support **Relationship Marketing Theory**, emphasizing that sustainable customer relationships depend on meaningful communication, responsiveness, and long-term engagement rather than transactional interactions alone.

Acceptability of the Proposed Credit Risk Management Plan

The proposed **Credit Risk Management Plan** received an overall composite mean of **4.79 (Highly Acceptable)**, reflecting strong agreement among Branch Managers, Account Officers, and Loan Clients regarding its relevance, feasibility, and practical value. The consistently high evaluations indicate broad stakeholder confidence that the proposed interventions appropriately address the operational challenges identified in the study.

The favorable assessment suggests that integrating preventive collection measures, ethical recovery practices, predictive analytics, customer engagement initiatives, and financial literacy programs offers a comprehensive framework to strengthen loan recovery operations. The high level of acceptability likewise indicates a strong likelihood of successful implementation, provided that management ensures adequate organizational support, resource allocation, and continuous monitoring of program outcomes.

Integrated Discussion of Findings

The findings demonstrate that effective loan recovery is achieved through the integration of structured collection strategies and customer-centered engagement practices. Commercial banks consistently implement preventive collection systems, ethical recovery procedures, payment reminder mechanisms, predictive analytics, and relationship-building initiatives, all of which contribute to stronger repayment performance and reduced credit risk. The significant positive relationships between collection strategies and customer engagement further confirm that operational efficiency and customer relationship management are mutually reinforcing rather than independent organizational functions.

Despite these positive results, the study also identified ongoing operational and customer-related challenges stemming from external economic pressures, organizational resource limitations, communication gaps, technology utilization, and borrower participation. These findings indicate that sustainable credit risk management requires continuous organizational improvement, technological innovation, and customer-centered service delivery. Collectively, the results support integrating **Credit Risk Management Theory** and **Relationship Marketing Theory**, demonstrating that long-term loan recovery is strengthened when evidence-based collection systems are complemented by ethical governance, transparent communication, and sustained borrower engagement.

CONCLUSION

Based on the findings of the study, the following conclusions are drawn:

1. The findings demonstrate that commercial banks in Sta. Rosa, Laguna have established comprehensive collection strategies characterized by preventive collection measures, early delinquency detection, payment reminder mechanisms, incentive programs, legal and ethical recovery practices, and the increasing use of data analytics. These strategies collectively contribute to systematic and proactive credit risk management that supports loan recovery while maintaining regulatory compliance and operational efficiency.

2. The study further concludes that customer engagement has become an essential component of successful loan recovery. Proactive communication, digital engagement, customer feedback mechanisms, aftercare services, and loyalty initiatives strengthen borrower cooperation and reinforce long-term banking relationships. However, the comparatively lower assessment of financial literacy programs indicates that borrower education remains an underdeveloped aspect of customer engagement requiring greater institutional attention.

3. The significant differences observed among respondent groups suggest that banking personnel and loan clients perceive collection practices from different operational perspectives. While employees recognize the extensive implementation of internal collection systems, borrowers primarily evaluate these practices based on their direct service experiences. This finding underscores the importance of improving transparency, communication, and customer awareness of collection-related initiatives.

4. The positive and statistically significant relationships between collection strategies and customer engagement confirm that effective loan recovery depends on the integration of operational excellence with relationship-oriented banking practices. Collection systems become more effective when complemented by continuous customer communication, ethical treatment, personalized services, and technology-enabled engagement.

5. Although participating banks have demonstrated strong implementation of collection and engagement strategies, operational challenges remain. Economic uncertainty, borrower financial constraints, communication gaps, and varying levels of customer participation continue to influence repayment performance. These challenges highlight the need for adaptive, technology-driven, and customer-centered credit risk management.

6. The high acceptability of the proposed Credit Risk Management Plan demonstrates its perceived relevance, feasibility, and responsiveness to the operational issues identified in the study. Its implementation provides a practical framework for strengthening collection effectiveness, enhancing customer engagement, and improving the long-term quality of commercial banks' loan portfolios.

RECOMMENDATIONS

Based on the findings and conclusions of the study, the following recommendations are proposed:

1. Commercial banks should further strengthen predictive credit risk management by expanding the use of advanced data analytics, automated monitoring systems, and early warning indicators to identify potential repayment risks and enable timely intervention.

2. Banks should enhance customer engagement strategies by adopting more personalized communication approaches, improving digital service platforms, and strengthening two-way communication that promotes borrower trust and long-term cooperation.

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3. Financial literacy programs should be institutionalized through regular seminars, digital financial education modules, budgeting workshops, and individualized financial counseling to improve borrowers' financial capability and repayment behavior.

4. Bank management should continue promoting legal, ethical, and customer-centered collection practices through regular policy reviews, employee capability-building programs, and continuous monitoring of compliance with regulatory standards and consumer protection principles.

5. The proposed Credit Risk Management Plan should be implemented gradually with clearly defined performance indicators, periodic evaluation, and continuous improvement mechanisms to ensure its long-term effectiveness and organizational sustainability.

6. **Address operational capacity constraints.** Bank management should periodically assess staffing requirements, workload distribution, and employee capability development within collection units. Continuous professional development programs focusing on credit risk management, digital technologies, customer relationship management, negotiation, and ethical collection practices should be provided to collection personnel to enhance operational effectiveness.

7. **Institutionalize continuous customer feedback mechanisms.** Commercial banks should establish systematic procedures for collecting, analyzing, and utilizing borrower feedback to improve collection processes, customer service quality, and organizational decision-making. Feedback results should be incorporated into continuous quality improvement initiatives.

8. Future researchers may expand the scope of this investigation by including commercial banks from other provinces and regions of the Philippines to improve the generalizability of the findings and provide broader insights into credit risk management practices across different banking environments.

9. Future studies may likewise employ **longitudinal research designs** to examine how collection strategies and customer engagement evolve over time and how these changes influence long-term loan recovery performance. **Mixed-methods research**, incorporating qualitative interviews with banking executives, collection officers, and borrowers, may provide deeper explanations of the operational challenges and organizational practices influencing repayment behavior.

10. Future researchers may also investigate additional variables, such as digital banking adoption, artificial intelligence in credit risk management, borrowers' financial behavior, organizational culture, customer trust, financial inclusion, regulatory compliance, and macroeconomic conditions, to develop more comprehensive models of loan recovery. Comparative studies involving commercial banks, rural banks, cooperative banks, digital banks, and microfinance institutions may further contribute to understanding context-specific credit risk management strategies and best practices within the Philippine financial sector

Practical Implications

The findings of this study provide important practical implications for commercial banks, banking executives, credit managers, collection personnel, and financial regulators. The results demonstrate that successful loan recovery depends not only on implementing structured collection procedures but also on establishing meaningful and sustainable customer relationships throughout the lending cycle. Financial institutions should therefore adopt an integrated credit risk management approach that combines preventive monitoring, predictive analytics, ethical recovery practices, proactive communication, customer engagement, and digital innovation to strengthen repayment performance while preserving long-term borrower relationships.

The study likewise highlights the growing importance of technology-enabled credit management. Investments in predictive analytics, digital engagement platforms, customer relationship management systems, and automated collection processes can significantly improve operational efficiency while supporting evidence-based decision-making. Equally important is the institutionalization of borrower financial literacy programs and customer engagement initiatives that strengthen repayment discipline through education, communication, and trust rather than relying exclusively on corrective collection measures. The proposed Credit Risk Management Plan therefore provides commercial banks with a practical framework for enhancing credit portfolio quality, reducing non-performing loans, improving customer satisfaction, and sustaining long-term organizational competitiveness.

Policy Implications

The findings suggest several policy implications for commercial banks and financial regulators. Banking institutions should formulate policies that integrate preventive collection systems, customer engagement strategies, digital technologies, and financial education into comprehensive credit risk management frameworks. Institutional policies should encourage ethical recovery practices, transparent communication with borrowers, standardized monitoring procedures, and continuous evaluation of collection performance to strengthen regulatory compliance and operational effectiveness.

From a regulatory perspective, the findings support the continued promotion of customer-centered credit management practices consistent with Bangko Sentral ng Pilipinas policies on consumer protection, responsible lending, and sound credit risk management. Banking regulators may likewise encourage financial institutions to strengthen digital transformation initiatives, predictive analytics capabilities, borrower education programs, and customer engagement standards as part of industry-wide efforts to improve loan recovery performance while maintaining financial stability and consumer confidence.

Limitations of the Study

This study was limited to selected commercial banks operating in Sta. Rosa, Laguna; therefore, the findings may not be directly generalizable to all commercial banks or other financial institutions in the Philippines. The investigation utilized a descriptive-correlational research design, which established statistical relationships between collection strategies and customer engagement but did not determine causal relationships among the variables.

The study relied primarily on self-reported responses from Branch Managers, Account Officers, and Loan Clients, making the findings subject to respondents' perceptions and experiences. Furthermore, the investigation focused only on the collection strategy and customer engagement dimensions identified in the conceptual framework. Other organizational, technological, macroeconomic, behavioral, and regulatory factors influencing loan recovery were beyond the scope of the present investigation and may be explored in future studies.

Declarations

Ethical Approval

The study strictly adhered to accepted ethical standards governing research involving human participants. Prior to data collection, permission to conduct the study was obtained from the appropriate academic authorities and participating commercial banks. Respondents were fully informed regarding the objectives, significance, procedures, and voluntary nature of their participation.

Participation was entirely voluntary, and informed consent was obtained from every respondent before administering the research instrument. Participants were informed of their right to decline to participate or withdraw from the study at any stage without adverse consequences.

Informed Consent

Informed consent was secured from all respondents before data collection commenced. Participants were assured that all information gathered would remain confidential and would be utilized exclusively for academic and research purposes. Individual identities, institutional responses, and personal information were not disclosed in any part of the study.

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