

## Research article

### **Credit Risk Management Strategy Based on the 5C Principles: Non-Performing Loan (NPL) Analysis in Determining the Collectibility Level of Multi-Purpose Loans at PT. BPD Jawa Timur Tbk. Cabang Pembantu Lawang-Malang Sub-Branch Office**

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**Abstract:** This research aims to analyze credit risk management strategies based on the 5C principles in determining credit collectibility levels for Multipurpose Credit at PT. BPD Jawa Timur Tbk. Lawang-Malang Sub-Branch Office. The method used is a descriptive qualitative approach with data collection through in-depth interviews and observations to understand the strengths, weaknesses, opportunities, and threats (SWOT) faced by Bank Jatim in implementing credit risk management functions. The research results demonstrate that 5C principles (Character, Capacity, Capital, Collateral, Condition of Economy) effectively support credit evaluation and NPL reduction. Despite declining NPL trends, risks persist, with Capacity identified as the primary NPL driver due to heavy reliance on borrower salary stability. SWOT findings reveal implementation strengths in responsiveness and stable market focus while highlighting deficiencies in risk diversification and monitoring comprehensiveness. The study proposes Psychological Profiling Integration (PPI) as an innovative enhancement to character assessment capabilities, targeting a 25% reduction in false positive rates. This strategic innovation aims to enhance risk forecasting precision and bolster the bank's market position within the civil servant lending sector.

**Keywords:** Credit risk management, 5C Principles, Multipurpose credit, NPL

## INTRODUCTION

The development of the banking industry in Indonesia has experienced significant progress in recent decades. Banks, as financial intermediary institutions, play an essential role in collecting funds from the public and redistributing them in the form of credit. According to Law Number 10 of 1998 concerning Banking, credit is the provision of money or claims that can be equated with it, based on agreements or loan agreements between banks and other parties that require the borrower to pay off their debts after a certain period with interest payments. As one of the main banking products, credit provision has also become the primary source of bank income derived from credit interest paid by debtors (Kasmir, 2017).

Credit distributed by banks supports various economic sectors, from micro businesses to large corporations, and helps meet the financial needs of society. Through consumptive

credit withdrawal, money circulation in the production sector can proceed well and produce better feedback (Andrianto, 2022). Data from Otoritas Jasa Keuangan (OJK) shows a consistent growth trend in consumptive credit from year to year. Until the third quarter of 2024, the portion of consumptive credit reached 26.2% of total national banking credit, with annual growth of 10.53%, higher compared to the previous year, which only reached 8.04%. Consumptive credit has become an important instrument in supporting people's purchasing power and driving the economy through the multiplier effect of consumption. However, consumptive credit growth that is too fast without being balanced by increased productivity and community income can raise concerns. In this context, Multipurpose Credit (KMG) has become one of the flagship products in the banking consumptive credit segment. KMG offers flexibility in fund usage that can be utilized for various consumptive purposes, from home renovation, education costs, and wedding expenses to purchasing other consumptive goods. Unlike specific consumptive credits such as Home Ownership Credit (KPR) or Motor Vehicle Credit (KKB), whose usage is limited to particular objects, KMG allows for prospective debtors to allocate funds according to their needs.

Bank Pembangunan Daerah (BPD), as a bank owned by regional governments, has a special mission to support economic growth and development in their respective regions. PT. Bank Pembangunan Daerah Jawa Timur Tbk. (Bank Jatim) as one of the largest BPDs in Indonesia, which plays a strategic role in supporting economic development in East Java Province. One of Bank Jatim's flagship products is Multipurpose Credit, which is intended to meet the community's various consumptive and productive needs. Bank Jatim's Multipurpose Credit is a credit facility provided to prospective debtors with payment sources from fixed income or salary. The primary targets of this product are Pegawai Negeri Sipil (PNS), BUMN/BUMD employees, TNI and Polri, private employees with fixed incomes, and retirees (Bank Jatim, 2023).

**Figure 1.**  
*Multipurpose Credit Productivity 2020-2024*



Source: Bank Jatim Annual Report

Based on the multipurpose credit productivity graph at PT. Bank Pembangunan Daerah Jawa Timur Tbk. for 2020-2024 above shows that Multipurpose Credit experienced consistent growth. In 2024, this credit reached Rp28.13 trillion, up 11.67%

(Rp2.94 trillion) from Rp25.19 trillion in 2023. The number of debtors also increased significantly by 15.13%, from 268,038 to 308,567 debtors.

Previously, from 2022 to 2023, this credit grew 5.85% (from Rp23.80 trillion to Rp25.19 trillion), with an increase in debtors of 9.02% (from 245,870 to 268,038 debtors). In the 2021 to 2022 period, credit growth reached 6.73% (from Rp22.30 trillion to Rp23.80 trillion), with an increase in the number of debtors of 6.68% (from 230,468 to 245,870 debtors). Meanwhile, from 2020 to 2021, credit grew 1.55% (from Rp21.96 trillion to Rp22.30 trillion), but the number of debtors experienced a slight decrease of -0.13% (from 230,771 to 230,468 debtors).

The large portion of Multipurpose Credit in Bank Jatim's credit portfolio reflects the high demand from the community for consumptive credit products. From a business perspective, this situation benefits the bank, considering that consumptive credit usually offers greater profit margins than productive credit. However, from a risk perspective, high concentration on one type of credit can increase the bank's vulnerability to macroeconomic condition fluctuations or regulatory changes that impact that credit segment.

Banks face credit risk in the credit distribution process, including Multipurpose Credit, which is the possibility of debtor failure to fulfill their obligations. To reduce this risk, comprehensive credit analysis becomes very important. The credit analysis standard commonly used in the banking sector is the 5C principle (the five C principle), which includes Character, Capacity, Capital, Collateral, and Condition of Economy (Rustam, 2022). This 5C principle is used as the basis for credit feasibility analysis to assess the credibility of prospective debtors before credit is distributed.

Bank Jatim Lawang Sub-Branch Office, one of the sub-branch offices serving customers in the Lawang area and surroundings, also implements the 5C principle in the multipurpose credit provision process. However, the implementation of this principle needs to be evaluated for its effectiveness in determining credit collectibility levels and reducing NPL rates. Credit collectibility level, which is the classification of credit payment status based on the smoothness of interest and principal payments as well as debtor capability, is divided into five categories: Current, Special Mention, Substandard, Doubtful, and Loss (Otoritas Jasa Keuangan, 2022).

In carrying out the credit distribution function, Bank Jatim Lawang Sub-Branch Office faces challenges in the form of credit risk due to the failure of debtors and/or other parties to fulfill obligations to the bank. This credit risk is reflected in the NPL level, which indicates the bank's credit portfolio quality. NPL has become the leading indicator of banking credit portfolio health. According to Peraturan Bank Indonesia Number 17/11/PBI/2015, banks are required to maintain NPL below 5% of total distributed credit. High NPL can disrupt liquidity, solvency, and bank profitability (Ismail, 2018).

**Table 1**  
*Non-Performing Loans (NPL) Bank Jatim*

<b>Year</b>	<b>NPL Gross Bank Jatim (%)</b>
2020	4,82%
2021	4,48%
2022	2,83%
2023	2,49%
2024	2,26%

Source: Bank Jatim Financial Reports

Data obtained from Bank Jatim shows a decrease in NPL on multipurpose credit in the last 5 years, showing a consistent and significant declining trend, from 4.82% in 2020 to only 2.26% in 2024, reflecting substantial improvement in the bank's credit portfolio quality. This decline indicates the effectiveness of credit risk management strategies, including implementing 5C principles in credit analysis. This research will explore more deeply how these strategies are implemented at the operational level at the Lawang Sub-Branch Office, specifically on Multipurpose Credit products.

This research aims to describe the credit risk management strategy based on 5C principles and NPL analysis in establishing credit collectibility levels for Multipurpose Credit at Bank Jatim Lawang Sub-Branch Office. This research is important because of several possible causes of problems that need further investigation. First, although Bank Jatim's NPL shows a declining trend, there are still potential risks that need to be anticipated, especially in global and regional economic volatility. Hasna et al. (2024) show that despite strictly implementing 5C principles in credit distribution, NPL levels are still influenced by various external factors, such as fund use by third parties and economic fluctuations, including the impact of the COVID-19 pandemic, contributing to increased problematic credit. Second, there has been no comprehensive evaluation regarding implementing 5C principles at the branch office operational level, especially on Multipurpose Credit products that have a significant portion in Bank Jatim's credit portfolio. Third, there is a gap in the practice of implementing 5C principles in the banking industry, as identified by Rahayu et al. (2021), who concluded that there are still inconsistencies in implementing 5C principles, especially in consumptive credit that tends to ignore capital aspects compared to other aspects. This is also strengthened by Rahmawati et al. (2021), who concluded that there are still inconsistencies in implementing 5C principles, especially in consumptive credit that tends to ignore capital aspects compared to other aspects. This is also strengthened by Rahmawati et al. (2021), who stated that an unbalanced analysis of these five aspects could cause errors in determining credit collectibility and potentially increase NPL later because banks may not sufficiently assess credit feasibility and debtor payment capability.

Several negative consequences can occur if this gap in implementing 5C principles is left without systematic evaluation and improvement. First, credit risk can increase significantly, which in turn will affect NPL levels. Although Bank Jatim's NPL shows a declining trend, without continuous evaluation of credit analysis practices, NPL can increase again when economic conditions change. Second, an imbalance in implementing 5C principles can cause non-optimal credit granting decisions, both in the form of rejection of prospective debtors who are eligible or approval of high-risk prospective debtors. Third, in the long term, failure to implement 5C principles effectively can result in decreased credit portfolio quality, impacting the bank's overall profitability and financial health. Finally, inconsistency in implementing 5C principles can reduce the level of trust of customers and regulators in Bank Jatim's credit risk management practices, which can disrupt the bank's reputation and business sustainability in the long term.

This research is limited to analyzing the implementation of 5C principles in the Multipurpose Credit provision process at Bank Jatim Lawang Sub-Branch Office, focusing on the 2020-2024 period by understanding the strengths, weaknesses, opportunities, and threats (SWOT) faced by Bank Jatim in implementing risk management functions. The research does not include technical analysis of credit interest

rate determination, bank funding structure, or other aspects outside credit risk management and multipurpose credit collectibility determination.

## LITERATURE REVIEW

### **Banking Credit Concept**

According to Banking Law No. 10 of 1998, credit is defined as the provision of money or claims that can be equated with it based on agreements or loan agreements between banks and other parties that require the borrower to pay off their debts after a specific period with interest payments. This definition emphasizes trust and agreement between the bank as a creditor and the customer as a debtor.

Kasmir (2017) emphasizes that credit is essentially a fund distribution activity based on trust, where the credit provider believes that the credit recipient will return the loan received according to the period and terms agreed upon by both parties. Credit granting always contains risk elements, so prudential principles are required from the credit provider.

In the economic context, credit has significant economic and micro-economic impacts. Macroeconomically, credit distribution plays a role in driving national economic growth through increased investment and public consumption. According to monetary economic theory, credit functions as a multiplier effect that can accelerate economic circulation (Mishkin, 2015).

At the macro level, consumptive credit, such as Multipurpose Credit, increases people's purchasing power, increasing aggregate demand and driving real sector growth. Bank Indonesia data shows that consumptive credit growth positively correlates with national economic growth, where every 1% increase in consumptive credit can contribute to GDP growth of 0.3-0.5% (Bank Indonesia, 2023).

From a microeconomic perspective, credit provides direct impact on individual and family welfare. Access to consumptive credit allows people to consume beyond their short-term financial capacity, thus improving living standards and consumption quality. However, the microeconomic impact of credit also needs to be managed carefully to avoid overleveraging that can result in financial distress at the household level (Rustam, 2022).

Rustam (2022) states that credit has become one of the primary sources of bank income and plays an important role in driving the economy. Through credit distribution, banks facilitate the flow of funds from parties with excess funds to parties who need funds for various economic activities.

### **Credit Risk Management**

Credit risk management is a process carried out by financial institutions to identify, measure, monitor, and control risks arising from credit distribution activities, where such risks occur when the borrower or counterparty is unable to fulfill their

obligations at maturity, resulting in financial losses for the bank due to debtor or other party failures in paying debts according to agreements (Sarjana et al., 2022).

Implementing effective credit risk management becomes crucial for banking institutions, especially in consumptive credit distribution such as Multipurpose Credit, which has risk characteristics. Good credit risk management must include three main components: risk assessment, control, and monitoring (Khan, 2020)..

Prudential principles in credit distribution become the primary foundation of credit risk management. In accordance with Peraturan Otoritas Jasa Keuangan (POJK) Number 18/POJK.03/2016 concerning the Implementation of Risk Management for Commercial Banks, banks are required to implement risk management effectively in every business activity, including credit distribution. According to Ismail (2018), implementing prudential principles in credit distribution not only functions to minimize credit risk, but also to maintain the overall health and business sustainability of the bank.

Effective credit risk management shows a positive correlation with bank health levels. According to Khan (2020), financial institutions that implement comprehensive risk management systems are proven to have better financial performance, reflected through low Non-Performing Loan (NPL) ratios. This research emphasizes that effective credit risk management is essential for the long-term success of banks, showing that banks with comprehensive credit risk strategies tend to maintain lower Non-Performing Loan (NPL) ratios and improve overall financial ratios.

### **Multipurpose Credit**

Multipurpose credit (KMG) is one type of consumptive credit offered by banks to meet various consumptive needs of customers. Multipurpose credit is a credit facility provided to individuals with payment sources from fixed income or salary, with flexible fund usage purposes for various consumptive needs (Bank Jatim, 2025).

Multipurpose credit has its risk characteristics as a consumptive credit product with fixed-income customer segments. Several risk factors that need to be considered in multipurpose credit management include the risk of decreased debtor payment capacity due to economic condition changes, overleveraged risk (excessive debt levels) on debtors, and employment termination risk that impacts debtor income sources.

From a credit risk management perspective, Multipurpose Credit has unique characteristics that must be considered in credit analysis. According to Nisa and Ria Armayani Hasibuan (2022), a flowchart containing various symbols describes the Multipurpose Credit (KMG) granting procedure. A flowchart is a diagram containing various symbols that detail the process and relationships between one instruction and other processes in the lending context (Kasmir, 2014).

### **5C Principles in Credit Analysis**

The 5C principles constitute a credit analysis framework widely used in the banking industry to assess prospective debtor feasibility. This principle becomes the basis for bank consideration in deciding credit approval to prospective debtors.

According to Kasmir (2017), the 5C principles are five interrelated assessment components in credit feasibility evaluation.

The first component is Character, which is an assessment of the personality, nature, and behavior of prospective debtors that reflects willingness to repay the given credit. Character assessment can be conducted through interviews, credit history analysis, or by checking the Debtor Information System (SID)/BI Checking (Indonesian Bankers Association, 2014).

The second component is Capacity, which assesses the prospective debtor's ability to manage their business and financial capacity to repay credit. In the context of Multipurpose Credit, capacity is usually measured from the prospective debtor's fixed income (salary).

Furthermore, Capital becomes the third component that assesses the prospective debtor's overall financial position, including owned assets and liabilities. For consumptive credit, such as Multipurpose Credit, the capital assessment focuses on the ability to save or have assets as payment reserves. The fourth component is Collateral, which assesses assets to be pledged as credit security, where collateral functions as bank protection from default risk.

Finally, as the fifth component, the Condition of Economy assesses macro and micro economic conditions that can affect the prospective debtor's ability to repay credit. These five components in the 5C principles complement each other and provide a comprehensive picture of credit granting feasibility to prospective debtors.

Implementation of the 5C principles in credit analysis comprehensively and balanced significantly impacts bank credit portfolio quality. Djuarni and Ratnasari (2022) show that implementing 5C principles at PT. BPR Kerta Raharja provides balanced assessment weights on all five components of 5C principles with an average (NPL of less than 5% in 2021, reflecting successful analysis and effective credit management).

### **Non-Performing Loan (NPL) and Credit Collectibility**

NPL is an important indicator reflecting bank credit portfolio quality. Peraturan Otoritas Jasa Keuangan (POJK) states that credit with collectibility 3, 4, and 5 are included in the NPL category. Credit collectibility is a credit classification based on payment smoothness by debtors. Based on POJK Number 40/POJK.03/2019 concerning Commercial Bank Asset Quality Assessment, credit collectibility is divided into five categories: collectibility 1 (current), collectibility 2 (special mention), collectibility 3 (substandard), collectibility 4 (doubtful), collectibility 5 (loss).

According to Bank Indonesia regulations, banks must maintain NPL below 5% of total distributed credit. Wahyuni (2017) found a significant relationship between credit analysis quality using 5C principles and bank NPL levels. Banks that conduct comprehensive credit analysis by implementing 5C principles in a balanced manner tend to have lower NPL levels. This research confirms that implementing 5C principles in

credit analysis is crucial for banks to reduce risk and protect their interests. It also shows potential relationships between practical credit assessment and lower NPL levels.

Determining credit collectibility levels is not only important for NPL calculation, but also has implications for Expected Credit Loss (ECL) formation that will affect bank profitability. High NPL levels negatively impact profitability, emphasizing the need for adequate ECL to reduce potential losses (Sososutiksno et al., 2024). Accurate and timely credit collectibility determination becomes key in managing credit risk and maintaining bank financial health. Khan (2020) emphasizes that accurate and timely credit collectibility determination becomes key in managing credit risk and maintaining a bank's financial health.

## METHOD

This study employs a qualitative descriptive research design to examine credit risk management strategies in-depth based on the 5C principles and Non-Performing Loan (NPL) analysis in determining credit collectibility levels for multipurpose credit at Bank Jatim Lawang Sub-Branch. The qualitative approach was selected as it allows for a comprehensive exploration of complex phenomena within their natural context, enabling the researcher to capture nuanced insights into credit risk management practices. Sugiyono (2020) states that qualitative descriptive research is grounded in postpositivist philosophy. It focuses on understanding natural phenomena through the researcher as the primary instrument, emphasizing meaning-making rather than statistical generalization. This approach is particularly appropriate for investigating the implementation of the 5C principles (Character, Capacity, Capital, Collateral, and Condition of Economy) and their impact on NPL control mechanisms, as it facilitates detailed exploration of processes, relationships, and outcomes within the banking context.

The research was conducted at PT. BPD Jawa Timur Tbk. Lawang-Malang Sub-Branch, located at Jl. Thamrin No.33, Lawang, Lawang District, Malang Regency, East Java, 65211, Indonesia. This branch was selected due to its substantial multipurpose credit portfolio and diverse customer base, providing rich contextual data for examining credit risk management practices. The study period spanned three months from March to May 2025, allowing access to comprehensive data series from 2020-2024 to analyze NPL trends and evaluate the five-year effectiveness of 5C principle implementation.

### Data Sources and Sampling

This study utilized a dual data source approach, incorporating primary and secondary data to ensure comprehensive coverage of the research phenomenon. Primary data were collected through a purposive sampling of key personnel directly involved in credit operations, including Credit Supervisors, Credit Analysts, Credit Administration staff, and Legal Credit officers. These informants were selected based on their expertise, experience, and direct involvement in multipurpose credit analysis and management processes. The selection criteria ensured that participants possessed substantial knowledge of 5C principle implementation and NPL management strategies.

Secondary data comprised of financial records from 2020 to 2024 obtained from PT. BPD Jawa Timur Tbk's official records, NPL statistical data for the corresponding

period, and relevant regulatory documentation from the Otoritas Jasa Keuangan (OJK). According to Sekaran and Bougie (2019), primary data provide direct insights into variables of interest. Mooi et al. (2021) emphasize that secondary data offer valuable historical context and enhance the robustness of primary data analysis.

### **Data Collection Methods**

Data collection employed a triangulation approach, utilizing multiple methods to enhance the validity and reliability of findings. In-depth semi-structured interviews constituted the primary data collection method, conducted with key informants to elicit detailed information about credit risk management practices, 5C principle implementation, and NPL handling strategies. The interviews followed a flexible protocol that allowed for probing questions and exploration of emergent themes while maintaining focus on core research objectives. As Creswell and Poth (2018) recommended, the semi-structured format enabled systematic data collection while preserving the flexibility necessary for qualitative inquiry. All interviews were audio-recorded with participant consent and subsequently transcribed for analysis.

Additionally, non-participant observation was conducted to examine credit analysis processes firsthand, from application receipt through decision-making stages. This observational component provided valuable insights into the practical implementation of theoretical frameworks and complemented interview data with direct behavioral evidence. Observation sessions were documented through comprehensive field notes that captured procedural details, interpersonal dynamics, and contextual factors influencing credit decisions.

### **Data Analysis Procedure**

Data analysis followed the interactive model proposed by Miles, Huberman, and Saldaña (2014), which encompasses four interconnected phases: data collection, data reduction, data display, and conclusion drawing with verification. The data collection phase systematically gathered primary and secondary data through the aforementioned methods. Data reduction was conducted by carefully reviewing interview transcripts and observational notes to identify essential themes and patterns related to 5C principle implementation, credit collectibility assessment, and NPL management strategies.

This process involved coding significant statements, categorizing emerging themes, and eliminating redundant or irrelevant information to focus on core research questions. The data display phase involved organizing reduced data into coherent formats, including narrative descriptions, matrices, and visual representations that facilitated pattern recognition and relationship identification. Specifically, this included trend analysis of NPL data for 2020-2024, development of implementation matrices for 5C principles, and construction of conceptual models illustrating relationships between 5C implementation and NPL outcomes. The final phase involved drawing conclusions based on identified patterns and themes, particularly the effectiveness of 5C-based credit risk management strategies and their impact on NPL levels. Following Mahajan (2020), all conclusions were rigorously verified through data triangulation, ensuring that multiple sources of evidence supported the findings and that the research maintained high validity and credibility throughout the analytical process.

## **RESULTS**

Based on interviews with credit analysts at Bank Jatim Lawang Sub-Branch, Bank Jatim's multipurpose credit has specific characteristics that distinguish it from other consumer credit products. This product explicitly targets customer segments, namely Civil Servants (ASN), retirees, village officials, contract workers, and honorary staff, with a repayment system taken directly from salaries based on received Legality of Letter of Decree (SK). The fundamental difference between multipurpose credit and other consumer credit products lies in the payment mechanism and type of collateral. Property-secured consumer credit uses a Certificate of Ownership (SHM) as collateral, motor vehicle credit uses vehicle registration certificates (BPKB), and Cash Collateral Credit (CCC) uses savings or deposits as collateral. Meanwhile, multipurpose credit only requires SK as the primary collateral.

The volume of multipurpose credit handled by analysts reaches an average of 40 customers per month, indicating a relatively high level of demand for this product. The credit analysis process can be completed within one day with adequate technological system support, enabling efficient credit disbursement.

## **Implementation of 5C Principles in Multipurpose Credit Analysis**

### **Character**

The character aspect of multipurpose credit is assessed by analyzing Otoritas Jasa Keuangan's Financial Information Service System (SLIK OJK) to determine prospective borrowers' credit history. The bank uses SLIK as the primary indicator in assessing borrowers' payment character at other financial institutions. Personal information verification is conducted through data matching on attached documents, including ID cards, family cards, marriage certificates, and SK. Red flag indicators in character assessment include collectibility above 1 in SLIK, indicating a history of delays or problematic credit. Borrowers with a history of bad credit or payment delays elsewhere are unlikely to obtain credit approval.

### **Capacity**

Capital is not a primary consideration in multipurpose credit analysis because the assessment is based on fixed salary receipts. The bank does not request financial statements or proof of asset ownership from prospective borrowers, so the capital factor does not influence credit-granting decisions. This contrasts with business credit, which requires comprehensive capital analysis.

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### **Collateral**

Collateral for multipurpose credit consists of Job Decree Letters (SK), which differ from collateral types in other credit products such as BPKB for vehicle credit, Certificate of Ownership (SHM) for property credit, or savings/deposits for CCC credit.

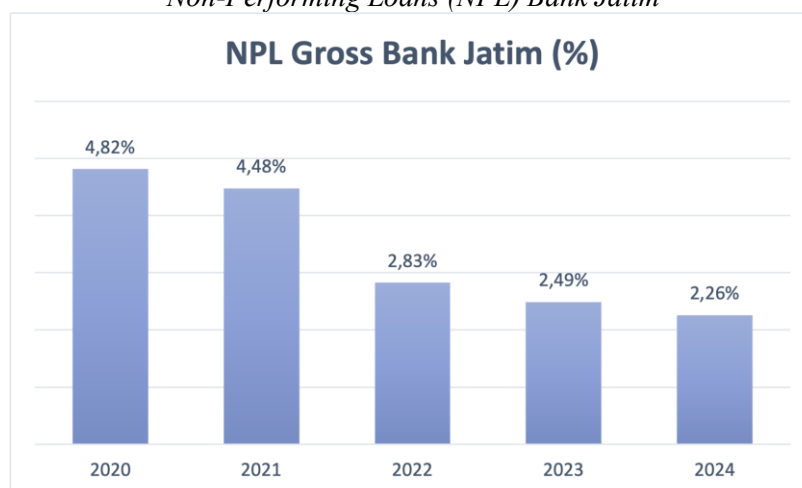
Collateral assessment is conducted through location surveys for collateral in the form of SHM and BPKB. The applied collateral coverage is 80% of collateral value against the credit ceiling. The primary consideration in assessing collateral feasibility is the collateral's ability to cover the total loan, enabling the auction to cover the remaining debt in case of default.

### Condition of Economy

Analysis of this principle focuses more on the stability of salary received by borrowers. Employment sector risk is assessed as low because multipurpose credit is granted explicitly to ASN, retirees, and village officials who have payroll systems through Bank Jatim or have established MOUs with the bank. Credit tenure is limited to a maximum until the borrower's retirement to minimize risk.

### Non-Performing Loan (NPL) Analysis and Credit Collectibility

**Figure 2.**  
*Non-Performing Loans (NPL) Bank Jatim*



*Source: Bank Jatim Financial Reports*

Based on data from Bank Jatim's financial reports, there has been a decrease in NPL for multipurpose credit over the last 5 years, showing a consistent and significant declining trend, from 4.82% in 2020 to only 2.26% in 2024. This reflects substantial improvement in the bank's credit portfolio quality.

### NPL Causal Factors

Based on multipurpose credit analyst experience, the Capacity aspect is the factor most frequently causing NPL occurrence in multipurpose credit. This occurs when a decrease in borrower salary impacts payment ability. Credit monitoring is conducted through periodic checking of incoming salary amounts. The characteristic pattern of borrowers who tend to experience payment problems is when salary decreases occur, which can be caused by various factors such as changes in employment status, allowance cuts, or early retirement.

### **Collectibility System**

Bank Jatim implements a credit collectibility system based on payment delays as follows:

- Collectibility 1 (Current): No delays
- Collectibility 2 (Special Mention): 1-90 days in arrears
- Collectibility 3 (Substandard): 91-120 days in arrears
- Collectibility 4 (Doubtful): 121-180 days in arrears
- Collectibility 5 (Loss): Over 180 days in arrears

This system aligns with banking regulatory provisions and serves as the basis for determining credit risk levels and establishing impairment loss allowances.

### **Effectiveness of 5C Principle Implementation**

Research results indicate that implementing 5C principles in Bank Jatim's multipurpose credit has characteristics adapted to the product. The primary focus on Character and Capacity reflects a good understanding of specific risks in multipurpose credit products. Using SLIK OJK as the primary tool for character assessment demonstrates appropriate technology application in risk assessment. However, high dependence on this single indicator can become a weakness if SLIK data is inaccurate or updated late.

The capacity assessment approach based on salary percentage (maximum 90%) provides clear and measurable limits. However, not implementing DSR as an additional analysis tool may reduce payment ability assessment accuracy, especially for borrowers with other financial obligations. The decrease in Bank Jatim's non-performing loan (NPL) ratio from 4.82% in 2020 to 2.26% in 2024 reflects a significant improvement in credit risk management. This improvement is influenced by several key factors, such as financing focus on civil servants (ASN) and retiree segments that have stable and predictable income.

Additionally, implementing direct salary deduction systems (payroll deduction) helps minimize payment delay risks. The use of the Financial Information Service System (SLIK) as an initial selection tool also plays an important role in filtering high-risk prospective borrowers. Identification of capacity factors as the primary cause of NPL aligns with the nature of multipurpose credit products that heavily depend on income stability, thus emphasizing the importance of strengthening the analysis of customer payment ability.

### **Credit Risk Management Strategy**

**Table 2.**  
*SWOT Strategies*

	<p><b>Strengths (S):</b></p> <ul style="list-style-type: none"> <li>● Fast credit analysis process (1 day)</li> <li>● Focus on segments with relatively low risk (state apparatus, retirees, and village officials)</li> <li>● Low and continuously decreasing NPL rate Application of a clear collectibility system (1-5)</li> <li>● Utilization of SLIK for assessing the character of prospective debtors</li> <li>● Payroll payment mechanism reduces default risk</li> </ul>	<p><b>Weakness (W):</b></p> <ul style="list-style-type: none"> <li>● High dependence on SLIK for character assessment</li> <li>● Excessive focus on the Capacity aspect (salary)</li> <li>● Lack of diversification of indicators in risk assessment</li> <li>● There is no specific strategy for maintaining credit quality</li> </ul>
<p><b>Opportunities (O)</b></p> <ul style="list-style-type: none"> <li>● Utilization of more advanced financial technology to improve the accuracy of risk prediction</li> <li>● Strategic market expansion</li> <li>● Strengthening relationships with existing debtors</li> <li>● Enhancing cooperation with various institutions to expand reach and facilitate the verification process</li> </ul>	<p><b>Strategy SO</b></p> <ul style="list-style-type: none"> <li>● Utilizing the power of an already efficient system to develop a more advanced digital platform with automated risk-scoring</li> <li>● Optimizing the quality of good NPL</li> <li>● Leveraging an integrated payroll system to offer cross-selling products to existing debtors.</li> </ul>	<p><b>Strategi WO</b></p> <ul style="list-style-type: none"> <li>● Developing alternative credit scoring to reduce dependence on SLIK</li> <li>● Creating specific strategies for quality maintenance for debtors</li> <li>● Utilizing partnerships with government agencies to access debtor information more comprehensively</li> </ul>
<p><b>Threats (T)</b></p> <ul style="list-style-type: none"> <li>● Government policies regarding the reduction of allowances or changes in the salary structure of civil servants may significantly increase NPL</li> <li>● Intense competition in the civil servant credit segment from other banks offering more competitive terms and conditions</li> <li>● Changes in OJK regulations regarding NPL and credit ratios</li> </ul>	<p><b>Strategy ST</b></p> <ul style="list-style-type: none"> <li>● Leveraging the SLIK database and collectability system to anticipate the impact of government policy changes on NPL</li> <li>● Using market stability to develop loyalty programs that can retain customers from switching to competitors</li> <li>● Utilizing existing monitoring systems to ensure high compliance with changes in OJK regulations</li> </ul>	<p><b>Strategy WT</b></p> <ul style="list-style-type: none"> <li>● Developing diversification strategies gradually to reduce dependence on a single segment</li> <li>● Enhancing internal capabilities to face regulatory changes and increasingly tight competition</li> <li>● Building strategic partnerships to expand market reach.</li> </ul>

Based on SWOT analysis, 5C principle implementation in multipurpose credit shows strengths in operational efficiency and stable target market but has weaknesses in risk analysis comprehensiveness. Opportunities for more sophisticated system development are available, while the main threats come from external factors that can affect borrower income stability.

### Strengths

The implementation of 5C principles at Bank Jatim demonstrates significant operational efficiency and portfolio quality strengths. The credit analysis process that

can be completed in one day reflects a well-digitized system, supported by a focus on relatively low-risk customer segments, namely ASN, retirees, and village officials with income certainty. Good credit quality is reflected in the consistently declining NPL trend from 4.82% in 2020 to 2.26% in 2024, showing the effectiveness of targeted yet straightforward monitoring systems through periodic salary checking. The assessment system already integrated with SLIK OJK provides accuracy in assessing borrower character, while payroll and non-payroll mechanisms with MOUs provide certainty in collection.

### **Weaknesses**

The main weakness is limited assessment indicators that can reduce risk analysis accuracy. High dependence on SLIK as the sole character indicator poses risks of incomplete information, especially for new customers without a credit history. Lack of diversification in risk assessment methods makes the system vulnerable to blind spots, while the absence of specific strategies to maintain credit quality can create long-term vulnerabilities. Neglected capital assessment for multipurpose credit also reduces the holistic understanding of borrowers' financial profiles.

### **Opportunities**

Development opportunities are widely open through the utilization of more advanced financial technology to improve risk prediction accuracy. Market expansion can also be conducted strategically, focusing on low-risk segments to drive portfolio growth without sacrificing quality. Additionally, collaboration with various institutions to enrich data in character assessment and implement open banking concepts will provide a deeper understanding of prospective borrowers' financial profiles, thus strengthening credit decision-making processes.

### **Threats**

The main threats come from high dependence on the government sector, which is vulnerable to fiscal policy dynamics and bureaucratic restructuring. ASN salary policies or pension system changes can significantly affect borrowers' payment ability, thus impacting credit portfolio quality. Concentration risk due to focusing on one market segment also increases potential risk if an economic crisis affects the public sector. On the other hand, increasing competition from other banks and fintech players can erode market share. Additionally, changes in banking regulations, particularly those related to NPL and risk management, may require system adjustments that are not only complex but also costly.

### **SO Strategy (Strengths-Opportunities)**

Strategies in this section are developed by leveraging internal strengths to optimize external opportunities. First, leveraging efficient system strengths to develop more advanced digital platforms with automated risk scoring, using one-day analysis speed as a foundation for further digitalization. Second, optimizing good NPL quality as a track record for expansion to similar segments or development of new credit products with still acceptable risk profiles is important. Third, using ASN target market stability as a foundation for expansion to private employee segments through payroll partnerships, leveraging expertise in payroll-based lending. Subsequently, integrated payroll systems

are utilized as a competitive advantage in offering cross-selling products to existing customers, using established relationships and trust.

### **WO Strategy (Weaknesses-Opportunities)**

To develop external opportunities to overcome internal weaknesses, several usable strategies were found. First, developing alternative credit scoring to reduce dependence on SLIK by utilizing transaction data, utility payment history, and social credit indicators. Second, building specific strategies to maintain service quality by implementing proactive borrower relationship management and risk management approaches tailored to each borrower's needs. Third, using partnerships with government agencies to access borrower asset and capital information more comprehensively, addressing weaknesses in capital aspect assessment.

### **ST Strategy (Strengths-Threats)**

Internal strengths can be optimized to face external threats through defensive approaches. In this context, three strategies are developed using internal strengths to overcome external threats. First, the SLIK database and collectibility systems will be leveraged to anticipate government policy change impacts on NPL, using historical data to predict risks. Second, using target market stability to develop loyalty programs that prevent customers from switching to competitors. Third, utilizing existing monitoring systems ensures high compliance with OJK regulatory changes.

### **WT Strategy (Weaknesses-Threats)**

Minimizing internal weaknesses and reducing external threat impacts requires careful approaches. Three strategies are developed to minimize internal weaknesses and reduce external threat impacts. First, gradual diversification strategies should be developed to reduce dependence on one segment while maintaining good credit quality. Second, enhancing internal capabilities through training and development to face regulatory changes and increasingly tight competition. Third, building strategic partnerships to expand market reach and enrich data sources for more accurate risk assessment.

## **DISCUSSION**

Based on a SWOT analysis conducted at Bank Jatim Lawang Sub-Branch shows solid performance in implementing 5C principles for multipurpose credit risk management. Implemented strategies demonstrate effectiveness in maintaining low and continuously declining NPL levels, with primary focus on low-risk borrower segments such as ASN, retirees, and village officials. Fast credit analysis process within one working day becomes a significant competitive advantage, supported by clear collectibility system implementation with 1-5 scale and SLIK utilization for prospective borrower character assessment.

However, an in-depth evaluation reveals several strategic weaknesses requiring serious attention. Dependence on SLIK in character assessment poses assessment process imbalance risks. In contrast, excessive emphasis on Capacity aspects (salary) without risk assessment indicator diversification can result in blind spots in potential default identification. Payment mechanisms through payroll currently relied upon to minimize

default risks can become vulnerabilities when faced with threats of government policy changes regarding ASN salary structures.

Facing increasingly complex business environment dynamics, existing strategies need strengthening through the implementation of 'Psychological Profiling Integration (PPI)' as an innovative primary strategy. Integrating standardized psychometric tests for prospective borrowers will provide new dimensions in character assessment that rely only on SLIK. Analysis of test results filled directly by prospective borrowers in handwritten form during application processes can identify behavioral red flags undetected through SLIK. Tests containing the application of economic behavioral principles for payment behavior prediction will enrich Capacity analysis by considering borrowers' psychological aspects in financial management.

PPI implementation with a target of 25% false positive rate reduction aims to strengthen existing credit risk management systems. The false positive rate refers to error levels when systems assess borrowers as risky when they are not. By reducing this error rate, banks can screen prospective borrowers more accurately. This strategy improves limitations in using insufficiently diverse risk indicators and utilizes more advanced fintech to improve risk prediction accuracy. Thus, banks can maintain competitive advantages in ASN credit segments while increasing resilience against potential external threats in the future.

## CONCLUSION

Based on the analysis results and discussions conducted regarding 5C principle-based credit risk management strategies for multipurpose credit at PT, BPD Jawa Timur Tbk. Lawang-Malang Sub-Branch, it can be concluded that the implementation of the 5C principle has demonstrated significant effectiveness in credit risk management. Bank Jatim's multipurpose credit has unique characteristics specifically targeted at Civil Servants (ASN), retirees, village officials, contract workers, and honorary staff segments with payment systems through direct salary deductions based on Decree Letters (SK) as primary collateral.

5C principle implementation shows adaptation suited to product characteristics, where primary focus is given to Character aspects through SLIK OJK analysis and Capacity with maximum ceiling establishment of 90% of total borrower salary. In contrast, capital aspects are not primary considerations due to the nature of fixed salary-based products. This strategy's success is reflected in significant and consistent NPL declining trends from 4.82% in 2020 to 2.26% in 2024, showing substantial improvement in credit portfolio quality with Capacity factors as primary NPL causes when borrower salary decreases occur.

Although SWOT analysis identifies significant strengths in operational efficiency with one-day credit analysis processes and payroll payment systems that minimize default risks, there are strategic weaknesses in SLIK dependence and lack of risk assessment indicator diversification. To strengthen existing systems, research recommends implementing Psychological Profiling Integration (PPI) as an innovative strategy with 25% false positive rate reduction targets, which is expected to improve risk prediction accuracy and strengthen the bank's competitive position.

This research contributes to banking credit risk management strategy development by proving that adaptive 5C principle implementation according to product characteristics and customer segments effectively maintains credit portfolio quality but requires continuous innovation in risk assessment methodologies to anticipate increasingly complex business environment dynamics in the future.

### **Implications**

This research contributes to a theoretical and practical understanding of credit risk management by validating the effectiveness of adaptive 5C principle implementation tailored to specific product characteristics and customer segments. Identifying Capacity as the primary NPL causal factor reinforces income stability theories in consumer lending. At the same time, the proposed Psychological Profiling Integration (PPI) strategy offers measurable improvements with a targeted 25% false positive rate reduction. Practically, the declining NPL trend from 4.82% to 2.26% demonstrates that focused market strategies on low-risk segments can achieve superior risk-adjusted returns, providing actionable insights for regional development banks and setting operational efficiency benchmarks for the Indonesian banking industry through technology integration and payroll deduction mechanisms.

### **Limitations and Future Directions**

This research has several limitations, including its exclusive focus on Bank Jatim Lawang Sub-Branch Office, which limits generalizability, the 2020-2024 study period that includes unique COVID-19 circumstances, and its methodology relying heavily on analyst interviews without comparative analysis with other institutions. The scope is deliberately limited to multipurpose credit products, excluding technical aspects and customer perspectives, while using primarily aggregated NPL data without industry benchmarks. Future research should expand the geographical and institutional scope to multiple branches and comparable banks, extend beyond the current timeframe to capture complete economic cycles, and incorporate customer perspectives through behavioral analysis. Investigating technological innovations such as AI/ML integration, blockchain applications for credit documentation, and alternative credit scoring using big data analytics could enhance risk assessment methodologies. Policy and regulatory research examining the implications of innovative assessment methods, macroeconomic impacts of concentrated government employee lending, and optimal regulatory frameworks balancing innovation with consumer protection would provide valuable insights for practitioners and policymakers.

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**Article Type (Research article)**  
**Research Article**