

DO MSME'S BORROW RATIONALLY? BEHAVIORAL BIASES, CREDIT DECISIONS, AND FINANCIAL MANAGEMENT EFFECTS

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Abstract

The phenomenon shows that the level of non-performing loans (NPL) among MSMEs in Buleleng Regency remains relatively high compared to the provincial average, indicating issues in the quality of financing decision-making, while many MSME actors continue to take credit despite suboptimal financial management capabilities, suggesting that financial decisions may be more influenced by psychological factors than data-based rational analysis. This study aims to analyze the effect of illusion of control and regret aversion on credit decision-making with financial management as a moderating variable among MSMEs in Buleleng Regency. The research employed a quantitative associative approach with data collected through questionnaires from 100–200 MSME actors and analyzed using SEM-PLS. The results show that illusion of control has a positive and significant effect on credit decision-making, whereas regret aversion has no significant effect. In addition, financial management is not proven to moderate the relationship between these psychological variables and credit decisions. These findings confirm that certain cognitive biases may be more dominant than financial management capability in influencing business financing decisions. This study contributes theoretically to behavioral finance literature in the MSME context and provides practical implications for financial institutions and policymakers to consider psychological aspects in credit education strategies and proper financial management practices as a basis for deciding to take credit.

Keywords: *Illusion of Control, Regret Aversion, Credit Decision-Making, Financial Management*

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are independent productive business units that serve as the main pillar of the Indonesian economy because they are able to reach various regions, including remote areas, and drive national economic recovery and growth (Purnamawati, 2020; Purnamawati & Yuniarta, 2021; Yuniarta et al., 2021). As of December 2024, the number of MSMEs reached 65.5 million units or 99.9% of the total national business actors, making this sector the backbone of the economy and the main creator of jobs (Sihombing & Masdiantini, 2025). Their contribution is very significant, accounting for around 61% of the national GDP of Rp9,300 trillion, absorbing 97% of the workforce, and contributing around 15% of non-oil and gas exports (Aprilia et al., 2025; Dewi, 2025; Helmy et al., 2025). The increase in the number and activities of MSMEs throughout 2022–2024 further emphasizes the vital role of this sector in maintaining national economic resilience.

MSMEs are a critical engine in advancing the economy in regional areas of Indonesia (Fitrianita & Sinarwati, 2024). Despite these contributions, MSMEs still face various structural problems such as limited capital, low financial literacy, limited technology, and weak business management (Wismanjaya & Werastuti, 2022; Liantifa, 2023). Capital is an essential factor for business sustainability, but many MSME players do not have adequate personal funding, so they need access to external financing (Munandar, 2016). The government also plays a role in supporting an entrepreneurial climate and policies that support MSME growth and performance (Purnamawati et al., 2022). The government and Bank Indonesia have responded through policies to increase MSME credit, including the subsidized People's Business Credit program and financing regulations (Ananda & Rasyid, 2024). Data shows that the trend of MSME credit in Bali has increased from year to year, indicating the high interest of business actors in utilizing credit as a source of capital. However, debt also carries risks if not managed wisely, as weak financial management can lead to bad debt or Non-Performing Loans (NPLs) that disrupt banking stability (Shaferi & Handayani, 2013; Ruscitasari et al., 2022; Rabbani & Rahadian, 2022).

The NPL phenomenon among MSMEs in Bali shows that Buleleng Regency consistently has a relatively high level of non-performing loans and is often above the provincial average, for example reaching 3.12% in the third quarter of 2024 before falling to 2.58% in the fourth quarter of 2024 (Bank Indonesia, 2025). This condition indicates that, in addition to financial factors, there are behavioral and decision-making quality factors that affect the ability of business actors to pay (Martadinata & Pasek, 2024). Although the government, OJK, and cooperatives have provided financing and assistance programs (Purnamawati et al., 2022; OJK, 2024), many MSME actors still make financial decisions that are not entirely rational (Prastyanti & Fajar, 2022). This shows the limitations of the conventional economic approach, which assumes that individuals are always rational (Kahneman & Tversky, 1979; Hirschey & Nofsinger, 2008), thus requiring a behavioral finance perspective that integrates psychological aspects into financial decision analysis (Statman, 2000; Pompian, 2006).

Within the behavioral finance framework, psychological biases such as the illusion of control and regret aversion are important factors that influence credit decisions. The illusion of control is the tendency for individuals to overestimate their ability to control outcomes that are actually uncertain (Klusowski et al., 2021; Berger & Tymula, 2022), so that business actors may be overconfident in taking on debt because they feel capable of managing the risk (Santoso & Safariah, 2023; Li et al., 2017). Conversely, regret aversion encourages individuals to avoid decisions due to regret aversion, which can lead to delays or suboptimal financial decisions. Previous research findings are mixed: some studies have found a significant influence of both biases on financial decisions (Hidayati et al., 2022; Anggraeni et al., 2021; Nakola et al., 2024), while others find weak or insignificant effects (Ananda & Rasyid, 2024; Purnamasari et al., 2025). This inconsistency indicates an empirical gap that requires contextual research.

Financial management is an important factor that has the potential to moderate the influence of these psychological biases because, through planning, recording, reporting, and financial control, business actors can make data-based and more rational decisions (Miranti, 2023; Oktav et al., 2024). However, many MSMEs still have limited accounting capabilities and have not prepared systematic financial reports, often mixing personal and business finances (Wijaya & Safitri, 2021; Majalahlarise.com, 2020). Weak financial management has an impact on business profitability and stability (Supiandi & Wulandari, 2020), while good management can increase business resilience to crises (Rizaty, 2024). Therefore, financial management is seen as having the potential to balance psychological and rational aspects in credit decisions.

This study is novel in that it integrates two behavioral biases, the illusion of control and regret aversion, as well as financial management as a moderating variable in the context of MSME credit decisions in Buleleng Regency, which has rarely been studied specifically. Its urgency is based on the high NPL of MSMEs in the region and the inconsistency of previous research findings, thus requiring empirical analysis that considers the local characteristics of business actors. This study is expected to contribute theoretically to the development of behavioral finance studies in the MSME sector and provide practical benefits for business actors and policy makers in formulating strategies to strengthen financial literacy and more rational credit decision-making.

LITERATURE REVIEW

Prospect Theory

Prospect Theory explains that decisions under uncertainty are not always rational because individuals evaluate outcomes relative to a reference point and are more sensitive to losses than gains (loss aversion) (Kahneman & Tversky, 1979; Tversky & Kahneman, 1992). This theory criticizes Expected Utility Theory because real decisions are influenced by psychological biases and non-linear probability weighting (Hirschey & Nofsinger, 2008; Pompian, 2006). Its main concepts include loss aversion, reference dependence, framing effect, and certainty effect, which explain MSME credit decision behavior that is often influenced by risk perception rather than rational analysis.

Behavioral Finance

Behavioral finance examines the influence of psychology, emotions, and cognitive biases on financial decisions, in response to the limitations of classical theory, which assumes complete rationality (Pompian, 2006; De Bondt et al., 2008). Financial decisions are often influenced by subjective factors such as experience and perception (Statman, 2000; Sukandani et al., 2019). Biases such as overconfidence, illusion of control, and regret aversion show that psychological factors play a major role in MSME debt decisions.

Financial Decision Making

Financial decision making is the process of selecting the best alternative to achieve financial goals by considering risks and benefits (Amalia & Ali, 2023). These decisions include investment, financing, and working

capital (Brigham & Houston, 2019) and determine business continuity because wrong decisions can reduce performance (Idrus, 1999). Decisions made by financial managers include investment decisions, financing decisions, and decisions regarding dividends (Sulindawati et al., 2021). Financial performance is a measuring tool that shows the effectiveness of asset utilization in carrying out the main activities of the business and its ability to generate profits (Werastuti et al., 2023). In MSMEs, debt decisions are important but risky (Ananda & Rasyid, 2024) and are often influenced by psychological biases such as overconfidence, illusion of control, and regret aversion (Siregar et al., 2022). The ability to decide between these two choices will influence financial behavior to avoid financial problems (Purnamawati et al., 2020).

Credit Decision

Credit decision is the process of choosing to take or reject a loan based on factors such as interest rates, income, procedures, trust, literacy, and access to information (Rahmadhani & Indriyani, 2022; Zainudin et al., 2021). Digitalization also facilitates decisions through transparent data (Rahman & Nur, 2020). The quality of credit decisions is measured through five indicators: financial support, productivity and discipline, debt benefits > risks, trust from other parties, and financial prudence (Anggraeni et al., 2021).

Illusion of Control

Illusion of control is a bias where individuals feel capable of controlling outcomes that are actually influenced by external factors, leading them to be overconfident and take risks (Santoso & Safariah, 2023). This bias increases with active involvement in decisions and can cause MSME actors to take on debt without adequate analysis (Hidayati et al., 2022). In research on credit decision-making among MSMEs in Buleleng Regency, illusion of control as proposed by Ellen J. Langer (1975) is reflected through the dimensions of choice, familiarity, involvement, and practice, which shape individuals' overconfidence in controlling the outcomes of debt-related decisions, thereby increasing their confidence in taking credit despite the presence of financial risks. Indicators include active involvement, familiarity with debt, and the perception of having complete information (Anggraeni et al., 2021).

Regret Aversion

Regret aversion is the tendency to avoid risky decisions due to regret aversion resulting from previous experiences of loss (Pompian, 2006; Santoso & Safariah, 2023). This bias causes business actors to choose safe options, delay decisions, or maintain the status quo even though better opportunities are available (Nakola et al., 2024; Samuelson & Zeckhauser, 2020). The concept of regret aversion originates from David E. Bell (1982), who emphasized that individuals consider potential regret in decision-making, and was further developed by Graham Loomes and Robert Sugden (1982) through Regret Theory, which highlights the role of emotions under uncertainty; operationally, this concept includes the dimensions of anticipated regret, regret avoidance behavior, counterfactual thinking, and emotional response to regret, reflecting the cognitive and emotional processes individuals experience when facing the possibility of regret. The indicators include risk aversion, inability to move forward, conservative choices, and status quo bias (Santoso & Safariah, 2023).

Financial Management

Professionalism in managing a business has a significant influence on the growth and progress of a company (Purnamawati et al., 2020). Meanwhile, the financial aspect relates to the ability of business actors to manage capital, separate personal and business finances, and manage profits and capital accumulation effectively (Suantari & Werastuti, 2024). Financial management is the process of systematically managing funds to maintain business sustainability and support rational decisions (Nur & Wulandari, 2024; Hervina, 2023). Financial management is often associated with financial management. Financial management activities are about maintaining and creating economic value or wealth (Putri & Werastuti, 2023). A good understanding of cash flow and expenses can help entrepreneurs make more informed decisions (Purnamawati et al., 2024). This practice covers aspects of funding sources, financial reports, cash management, and budgeting. The main indicators are financial planning, recording, reporting, and control, which determine the financial health and success of MSMEs (Hervina, 2023).

METHOD

This study uses an associative quantitative approach with a survey method by distributing questionnaires to MSME players in Buleleng Regency to examine the effect of illusion of control and regret aversion on credit decisions with financial management as a moderating variable. A quantitative approach was chosen because it is able

to measure the relationship between variables objectively and allows for systematic hypothesis testing. The 2023–2025 period was chosen because there were significant dynamics in MSME credit in the region, including fluctuations in the NPL rate, which reflected ongoing problems in debt management. The research population consisted of all MSMEs in Buleleng Regency, totaling 88,757 business units. However, the number of bank credit users was not known precisely due to limited data access. Therefore, the sample was determined using accidental sampling techniques with specific criteria in accordance with non-probability sampling recommendations (Sekaran & Bougie, 2019; Hair et al., 2022). The sample consisted of 100–200 respondents who were MSME actors using credit and playing a role in financing decisions. The research variables consisted of credit decision (Y), illusion of control (X1), regret aversion (X2), and financial management (Z), with indicators for each construct measured using a Likert scale (Anggraeni et al., 2021; Santoso & Safariah, 2023; Hervina, 2023).

Data collection was conducted through questionnaires as the main instrument, supported by observation, documentation, and semi-structured interviews to obtain relevant primary and secondary data (Sekaran & Bougie, 2019). The instruments were tested through a pilot test on 35 respondents to ensure validity and reliability, with criteria of outer loading > 0.7 and Cronbach's Alpha \geq 0.7 (Hair et al., 2022). Data analysis used Partial Least Squares-based Structural Equation Modeling (SEM-PLS) with the help of SmartPLS because this method has the advantage of minimal distribution assumptions and is capable of testing measurement and structural models simultaneously (Hair et al., 2022). The outer model evaluation included convergent validity, discriminant validity using the Fornell-Larcker method, and reliability using Cronbach's Alpha and Composite Reliability, while the inner model was tested using R² values, bootstrapping, T-statistics, and P-values to assess the significance of the relationships between variables. The hypothesis is accepted if $T > 1.97$ and $P \leq 0.05$ (Hair et al., 2022).

RESULTS AND DISCUSSION

Result

Data Description

This study uses a quantitative approach to analyze the effect of the illusion of control and regret aversion on MSME credit decisions in Buleleng Regency, with financial management as a moderating variable, through a questionnaire survey distributed directly and online to MSME actors who have credit experience. Of the 222 questionnaires distributed by a team of six people, 23 were eliminated because they did not meet the criteria, and 26 were eliminated during data cleaning due to incomplete, inconsistent, or outlier answers, resulting in 173 data sets suitable for analysis (77.93%) that were considered valid and reliable enough for model testing using PLS-SEM.

The majority of MSME respondents in Buleleng Regency were male (56.07%), of productive age, mainly 35–54 years old (66.47%), with a high school/vocational school education (72.83%), have been running their businesses for >6 years (60.12%), are micro-scale (75.72%), and mostly come from Buleleng District (32.95%). Most have also used credit for more than 3 years (73.41%), indicating relatively mature business and financing experience and active involvement in credit decision-making.

Descriptively, the control illusion variable was in the high category (mean 4.035), regret aversion was low (2.398), financial management was moderate (3.338), and credit decision-making was high (4.190). These results indicate that MSME actors tend to be confident and bold in taking out credit, but financial management practices are not yet optimal, so financial capacity building is still needed to make credit decisions more effective and sustainable.

Structural Equation Modeling-Partial Least Square (SEM-PLS)

Measurement Model Evaluation (Outer Model)

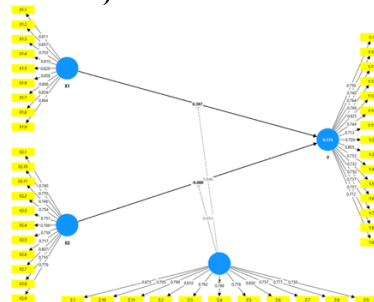


Figure 1. Outer Model Variable Indicators
(Source: Processed Data, 2026)

The measurement model (outer model) was evaluated to assess the suitability of the indicators in representing the latent constructs used in this study. The outer model testing included an assessment of the validity and reliability of the indicators to ensure that the research instruments were able to measure each variable accurately and consistently. The initial evaluation results based on Figure 1 show that, in general, the indicators used have met the required measurement criteria, so that the measurement model is declared feasible to proceed to the structural model testing stage.

Table 1. Summary of Outer Model Evaluation

Test Aspect	Variable/Criteria	Main Results	Description
Outer Loading	X1, X2, Y, Z	0,703 – 0,875	All indicators $\geq 0,70$ (valid)
AVE	X1 = 0,672; X2 = 0,576; Y = 0,573; Z = 0,619	All > 0,50	Convergent validity is fulfilled
HTMT	Inter-construct	0,032 – 0,407	All < 0.85 (valid discriminant)
Fornell-Larcker	$\sqrt{\text{AVE}}$ diagonal	0,757 – 0,820	Greater than other correlations
Cross Loading	All indicators	Highest loading on own construct	No indicator overlap
Reliability	Cronbach's α	0,928 – 0,953	Highly reliable
	Composite Reliability	0,855 – 0,951	High internal consistency

(Source: Processed Data, 2026)

The results of the outer model evaluation show that all indicators and constructs meet the criteria for validity and reliability comprehensively, as indicated by outer loading values ≥ 0.70 , AVE > 0.50 , HTMT < 0.85 , AVE roots higher than other construct correlations, and consistent cross loading on the original constructs, plus Cronbach's Alpha and Composite Reliability values > 0.70 ; thus the measurement model is declared to be very good, accurate, stable, and suitable for use in further structural analysis.

Prediction Model Evaluation (Inner Model)

Structural model evaluation (Structural Model/Inner Model) is a measurement to evaluate the accuracy of the model in the overall study, which is formed through several variables along with their indicators.

Table 2. Summary of Inner Model Evaluation

Evaluation Aspect	Value	Interpretation
R ²	0,174	Low–moderate explanatory power
Q ² Predict	0,115	Weak predictive relevance
f ²	X1→Y = 0,166; others are very small	Dominant influence only X1
Model Fit	SRMR = 0,058; NFI = 0,780	Good–moderate model fit

(Source: Processed Data, 2026)

The results of the inner model evaluation show that the explanatory power of the model is low to moderate (R² = 0.174) with weak predictive relevance (Q² = 0.115), where only the illusion of control variable has a relatively significant influence on credit decisions, while other variables and moderating effects are very small. However, the model fit values (SRMR 0.058; NFI 0.780) indicates that the model structure is sufficiently representative so that it can still be used for analyzing the variables's relationship.

Hypothesis Testing (Bootstrapping)

The bootstrapping test aims to show how much influence each independent variable has on the dependent variable, either directly or indirectly through moderating variables. Furthermore, hypothesis testing aims to assess the relationship between constructs in the model, whether it is in accordance with initial assumptions or not. Path coefficient values and significance levels (P-values) are used to assess the strength and direction of these relationships. A hypothesis is accepted if the P-value ≤ 0.05 and the T-statistic > 1.97 . Conversely, if the P-value exceeds 0.05 and the T-statistic is less than 1.97, the hypothesis is rejected (Hair et al., 2022). The results of this stage form the basis for drawing conclusions about the causal relationships tested in the study.

Bootstrapping

Table 3. Hypothesis Testing

Hypothesis	Effect	Original Sample (O)	T statistics	P-Values	Results
H1	X1 -> Y	0.387	5.653	0.000	Accepted
H2	X2 -> Y	-0.080	1.249	0.212	Rejected
H3	Z x X1 -> Y	0.046	0.514	0.607	Rejected
H4	Z x X2 -> Y	-0.051	0.658	0.510	Rejected

(Source: Processed Data, 2026)

Based on the table, the following equation can be obtained.

$$Y = 0,387 X1 - 0,080 X2 + 0,046X1*Z - 0,051X2*Z + e$$

Based on the equation model above, it can be explained as follows.

1. The Effect of Illusion of Control on Credit Decision Making

The results of testing the effect of the illusion of control on credit decision-making show that the t-statistic value of 5.653 is greater than the t-table value of 1.97, and the p-value of 0.000 is less than 0.05. This indicates that the illusion of control affects credit decision-making. In addition, a positive coefficient of 0.387 was obtained, indicating a positive direction of influence between the illusion of control and credit decision-making. Based on these results, it can be concluded that the illusion of control has a positive and significant effect on credit decision-making, thus accepting the first hypothesis.

2. The Effect of Regret Aversion on Credit Decision-Making

The results of testing the effect of regret aversion on credit decision-making show that the t-statistic value of 1.249 is smaller than the t-table value of 1.97, and the p-value of 0.212 is greater than 0.05. This indicates that regret aversion does not have a significant effect on credit decision-making. The coefficient of influence obtained is negative at -0.080, which indicates a negative but insignificant influence. Thus, it can be concluded that regret aversion does not affect credit decision-making, so the second hypothesis is rejected.

3. The Effect of Illusion of Control on Credit Decision-Making Moderated by Financial Management

The results of testing the moderating effect of financial management on the relationship between the illusion of control and credit decision-making show that the t-statistic value of 0.514 is smaller than the t-table value of 1.97, and the p-value of 0.607 is greater than 0.05. These results indicate that financial management is unable to moderate the effect of the illusion of control on credit decision-making. The interaction coefficient obtained was 0.046, indicating a positive but insignificant effect. Thus, financial management does not act as a moderating variable in this relationship, and the third hypothesis is rejected.

4. The Effect of Regret Aversion on Credit Decision-Making Moderated by Financial Management

The results of testing the moderating effect of financial management on the relationship between regret aversion and credit decision-making show that the t-statistic value of 0.658 is smaller than the t-table value of 1.97, and the p-value of 0.510 is greater than 0.05. This indicates that financial management does not moderate the effect of regret aversion on credit decision-making. The interaction coefficient of -0.051 indicates a negative effect, but it is not significant. Therefore, it can be concluded that the fourth hypothesis is rejected.

Discussion

The Effect of Illusion of Control on Credit Decision Making

The illusion of control has been proven to have a positive and significant effect on credit decision making, which means that the higher the level of illusion of control among MSME actors, the greater their tendency to take out credit because they feel that the decision is entirely within their control. This finding is supported by empirical data showing that the average illusion of control among respondents was in the high category (4.045), and credit decision-making was also high (4.190), reflecting the strong confidence of MSME actors in Buleleng Regency in their ability to manage loans, determine the type and amount of credit, and deal with financial consequences. This confidence increases their courage and readiness to utilize credit as a source of business funding, making the illusion of control an important psychological factor in shaping credit decisions and confirming the first hypothesis of the

study. The high illusion of control among MSME actors is reflected in their active involvement in determining credit decisions, greater trust in personal judgment than external advice, and the perception that their experience and knowledge are sufficient to manage risk, thereby encouraging quick and decisive financing decisions (Dara et al., 2025). This finding is in line with the research by Pengestu & Satoto (2025), which shows that individuals with a high perception of control are more confident in using credit as an instrument for business development. The high illusion of control is also reinforced by familiarity with debt due to long business experience, which shapes the view that credit is a natural part of business activities (Hasibuan, 2023) and increases confidence in making loan decisions (Saputra & Zoraya, 2024). In addition, the belief that one has complete information about credit procedures, risks, and benefits reinforces the perception that risks can be controlled (Juhainah, 2025), so that MSME players assess the benefits of credit to be greater than the risks. A positive perception of financial institutions also strengthens credit decisions, as entrepreneurs who feel trusted tend to be more willing to apply for loans (Pérez-Campdesuñer et al., 2026). Although often associated with excessive risk-taking, in the context of this study, the illusion of control actually goes hand in hand with a cautious attitude towards debt management, thus functioning as a subjective belief that encourages the courage to take out credit while maintaining the perception that debt can be managed responsibly.

Interviews with MSME entrepreneurs and banking institutions in Buleleng Regency show that the level of illusion of control in credit decision-making is relatively high, reflected in the strong belief of entrepreneurs in their ability to understand business conditions, control the use of loans, and bear the risks consciously and deliberately. MSME entrepreneurs no longer view credit as taboo, but rather as a strategic instrument for increasing capital and developing their businesses, thereby fostering self-confidence, positive affirmation, and the courage to make financial decisions. This confidence is reinforced by easy access to credit information through bank outreach, social media, and educational activities, which make business owners more familiar with loan procedures and mechanisms. From a banking perspective, MSME debtors generally have made mature decisions and are mentally prepared before their loan applications are processed, indicating a high perception of control over credit decisions and consequences. In addition, the active involvement of MSME entrepreneurs from the planning stage to loan approval, including understanding the purpose of the funds, payment schemes, and financial risks, further strengthens the belief that credit can be managed according to business capabilities, so that the illusion of control plays a role in encouraging their confidence, readiness, and consistency in utilizing credit as a source of business funding.

These research findings can be explained through Prospect Theory, which states that individuals evaluate economic decisions based on relative perceptions of gains and losses, so that MSME players view credit as an opportunity for greater benefits while the risks are considered controllable. This perspective is reinforced by the Behavioral Finance framework, which asserts that financial decisions are influenced by psychological biases, where the illusion of control makes business actors believe that their involvement, experience, and information can control the outcome of credit decisions even in uncertain conditions, thereby increasing their willingness to borrow and their perception that the benefits of credit outweigh the risks. These results are in line with the research by Hidayati et al. (2022), Anggraeni et al. (2021), and Pengestu & Satoto (2025), which found a significant positive effect of the illusion of control on MSME financial decisions, showing similar behavior patterns in various regions. However, these findings differ from those of Ananda & Rasyid (2024), who found a positive but insignificant effect, and Purnamasari et al. (2025), who found a negative effect, which may be due to differences in respondent characteristics and the context of the research area.

The Effect of Regret Aversion on Credit Decision Making

The test results show that regret aversion does not have a significant effect on credit decision-making, so the second hypothesis is rejected. Although the direction of the relationship tends to be negative, the effect is not strong enough because the respondents' credit decisions are relatively high (average 4.190) while the level of regret aversion is relatively low (2.398), indicating that MSME actors in Buleleng Regency have high confidence and courage in taking credit without being overly concerned about future regret. Credit is perceived as a strategic necessity for operations, cash flow, and business growth, so fear of risk is not a major obstacle. This low influence is also reflected in the minimal avoidance of credit risk and the tendency of business actors to continue taking loans even though they understand the risks, in line with the findings of Ključnikov et al. (2025) that positive attitudes and perceptions of behavioral control increase the likelihood of entrepreneurs accessing bank credit. In addition, MSME actors remain able to develop their businesses with credit, viewing it as a means of productivity (Aristanto, 2019), and tend to choose external financing because of economic benefits such as ease of access and flexibility (Agustiani & Afdal, 2025), so that financing decisions are more influenced by economic rationality than conservative attitudes. Openness to changes in financing strategies also indicates that business actors are not bound by negative past experiences, so

that regret aversion does not hinder credit decisions (Cahyani & Yunita, 2026). The interview results reinforce the finding that regret aversion is not a determining factor in credit decisions. Most MSME actors stated that credit actually facilitates business operations and enables expansion. Even after years of running a business, they continue to use loans to expand the scale of their business. Although some respondents admitted to having concerns when their business declined, this fear did not cause them to delay credit decisions but was accepted as a risk that must be faced for the sake of business continuity. This perspective is also confirmed by banks, which state that after understanding the credit mechanism, customers generally continue to take out loans due to business needs, and rarely experience regret after taking out credit. This condition shows that the practical benefits of credit are more dominant than the fear of negative consequences.

Theoretically, these findings can be explained through Prospect Theory and Behavioral Finance, which state that individuals usually avoid risky decisions that could potentially cause regret. However, in the context of this study, MSME actors are more focused on the potential benefits of credit than the possibility of loss. This means that the psychological bias of regret aversion is not always dominant in financial decisions, as considerations of business needs and confidence in the ability to manage credit are more decisive. These results are in line with Purnamasari et al. (2025), who found that regret aversion did not significantly influence MSME credit decisions, but differ from Laksmana (2024) and Nakola et al. (2024), who found a negative influence. These differences are likely due to respondent characteristics, business experience, and research environment conditions.

The Effect of Illusion of Control on Credit Decisions Moderated by Financial Management

The test results show that financial management is unable to moderate the relationship between illusion of control and credit decisions, thus rejecting the third hypothesis. This is because the respondents' level of financial management was in the moderate category (3.388), which indicates that financial planning, recording, reporting, and control practices are not yet optimal. This condition means that financial management does not yet function as a mechanism to control psychological behavior, so credit decisions are still dominated by the subjective beliefs of MSME actors, rather than systematic financial considerations. This finding is in line with the empirical conditions of MSMEs in Buleleng Regency, which still mix personal and business finances, do not record transactions regularly, and have not compiled structured financial reports (Wijaya & Safitri, 2021; Majalahlarise.com, 2020). As a result, financial management has not been able to provide objective information as a basis for evaluating financing decisions, making it insufficient to counteract the illusion of control (Santoso & Safariah, 2023; Hidayati et al., 2021), especially when there are no clear benchmarks for assessing repayment capacity and credit impact (Supiandi & Wulandari, 2020).

Interviews reinforce the finding that most MSME actors only implement simple record-keeping, limited to recording income and expenses without comprehensive reports, and sometimes even mixing business and personal funds. This practice shows that financial management functions more as an operational reminder tool than an instrument for evaluating financial performance. Only a small number of developed businesses implement formal financial management and use financial reports as a basis for credit considerations, but this condition does not represent the majority of respondents. Banks also confirm that many MSME players, especially micro businesses, do not have adequate financial records when applying for credit, but still apply for financing due to business needs. This shows that credit decisions are more influenced by subjective beliefs about business capabilities and future expectations than by data-based financial analysis.

Theoretically, these findings can be explained through Prospect Theory and Behavioral Finance, which assert that in conditions of uncertainty, individuals tend to make decisions based on subjective perceptions of risk and benefits. The illusion of control makes MSME actors believe that credit risk can be controlled even though financial management is not yet optimal, so that psychological bias is more dominant than rational mechanisms. Thus, the failure of financial management as a moderating variable shows that without strong and consistent financial management practices, the influence of the illusion of control will remain a major factor in determining MSME credit decisions in Buleleng Regency.

The Effect of Regret Aversion on Credit Decisions Moderated by Financial Management

The test results show that financial management is unable to moderate the effect of regret aversion on MSME credit decisions in Buleleng Regency, thus rejecting the fourth hypothesis. The interaction between the two variables was not significant because respondents' credit decisions remained high even though the level of regret aversion and the quality of financial management were relatively low. This shows that suboptimal financial management has not been able to activate the prudence mechanism that usually arises from regret aversion, so that credit decisions are

still made based on business needs, rather than emotional considerations or structured financial evaluations. This condition is reinforced by weak record-keeping, cash flow planning, and fund control practices among many MSME players, who still mix personal and business finances and have not compiled systematic reports (Wijaya & Safitri, 2021; Majalahlarise.com, 2020), so that financial information has not been utilized as the main basis for financing decisions. Interview results confirm that credit decisions are driven more by capital needs and business continuity than by long-term risk considerations. Many MSME players admit that they do not systematically calculate cash flow projections or repayment capabilities, and even though they are aware of the risks, they still take out loans due to urgent business needs. The attitude of accepting risk as a normal part of business activity makes the regret aversion temporary and does not develop into conservative behavior. Only a small number of large-scale businesses use formal financial reports as a basis for credit considerations, while the majority still rely on simple records. Banks also confirm that MSME credit applications are generally accompanied only by basic financial records, meaning that financial management is not yet strong enough to transform subjective concerns into objective risk assessments.

Theoretically, these findings can be explained through Prospect Theory and Behavioral Finance, which state that individuals tend to avoid risks that could potentially cause regret, but this mechanism does not work optimally when it is not supported by an adequate financial system. Without structured financial management practices, psychological biases such as regret aversion are not strong enough to influence decisions, so credit decisions remain dominated by perceptions of business benefits and needs. Thus, the failure of financial management as a moderating variable confirms that without the support of clear and rational financial information, the influence of regret aversion on credit decisions becomes weak and insignificant.

CONCLUSION

The findings of this study indicate that credit decisions among MSMEs in Buleleng Regency are more influenced by psychological factors such as the illusion of control and business needs than by regret aversion or financial management quality. The illusion of control has been proven to have a significant positive effect on credit decisions, while regret aversion has no significant effect, and financial management is unable to act as a moderating variable in either relationship. These results indicate that the MSME financing decision-making process is still dominated by subjective perceptions and beliefs about the benefits of credit, while suboptimal financial management practices have prevented data-based rational consideration mechanisms from functioning effectively in balancing behavioral biases. Thus, strengthening systematic and structured financial management capacity is an important aspect of improving the quality of credit decisions and reducing the dominance of psychological factors in the financial behavior of MSME actors.

MSME actors are advised to improve the quality of credit decisions by controlling the illusion of control and strengthening financial management practices, such as recording, cash flow planning, and adjusting payment capabilities, so that the risk of non-performing loans can be reduced. Local governments need to balance the expansion of access to financing with practical financial literacy and education programs, as well as post-financing assistance. Banks are also encouraged to consider debtor behavior aspects in addition to administrative eligibility and to monitor credit usage to prevent defaults. Meanwhile, future researchers are advised to add other variables, expand the region and sample size, and use a mixed-method approach to make the research results more in-depth and have stronger generalizability.

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