CREDIT RISK AND ITS IMPACT ON EARNINGS OF NEPALESE FINANCE COMPANY

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ABSTRACT
This study has examined the impact of credit risk on earning performance of Nepalese finance companies. The descriptive and causal-comparative research designs have been adopted for the study. The pooled data of four finance companies out of seventeen for the period of 2074/75 to 2078/79 have been analyzed using a regression model via SPSS. Impairment charge ratio and non-performing loan ratio are independent variables whereas interest spread rate, profit margin, and return on assets are the dependent variable. The regression results revealed that there is a significant and positive relationship between interest spread rate and credit risk indicators, the non-performing loan ratio has an insignificant and negative effect on earnings performance and the impairment charge ratio has an insignificant but somewhat positive effect on the earnings performance of finance companies of Nepal. Nepalese finance companies should strictly follow the prevailing NRB Directive as well as Basel II Accord while managing credit risk and finance companies should use their effort to reduce non-performing loans.

Keywords: Impairment charge, Non-performing loan, Interest spread, Profit margin, Return on assets

INTRODUCTION
A credit risk is the risk of default on a debt that may arise from a borrower failing to make required payments on time. In the first resort, the risk is that of the lender and includes lost principal and interest, disruption to cash flows, and increased collection costs. Factors for its risk include counterparty risk and concentration risk. The Finance has applied mitigates for the management of credit risk factors are independent and ongoing credit quality review, limiting credit exposures, problem credit management system, diversification of risk asset portfolio among several sectors and sub-sectors of the economy over a large number of customers, the deposit of borrower in the bank, cash margin and additional collateral at an individual level (Annual report of Goodwill Finance Ltd – 2078/79, page 76). Such mitigates are monitored by the Board of Directors, the Risk Management Committee which is the Board Level Committee, the Credit Risk Management Department, the NRB Inspection team, and the Internal Audit Department of Finance.
Credit risk is the possibility of a loss resulting from a borrower's failure to repay a loan or meet contractual obligations. Traditionally, it refers to the risk that a lender may not receive the owed principal and interest, which results in an interruption of cash flows and increased costs for collection. It is a risk of a financial loss if a borrower or counterparty fails to honor commitments under an agreement and any such failure has an adverse effect on the financial performance of the bank. Coyle (2000) defines credit risk as losses from the refusal or inability of credit customers to pay what is owed in full and on time. It arises mainly from direct lending and certain off-balance sheet products such as guarantees, letters of credit, foreign exchange, forward contracts & derivatives, and also from the bank’s holding of assets in the form of debt securities. It may take the form of delivery or settlement risk. Generally, the credit risk of financial institutions is measured by impairment charge ratio (i.e., provision for loan loss) and non-performing loan ratio. It is critical to bank survival or failure because banks traditionally earn huge profits from interest on their risk exposures. The management of credit risk is a critical component of a comprehensive approach to risk management and is essential to the long-term success of a bank (Bhattarai, 2019).

The importance of credit risk management to finance companies cannot be overemphasized and it forms an integral part of the loan process. Loans and advances provided to borrowers may be at risk of default, whereas banks extend the credit on the understanding that borrowers will repay their loans. Some borrowers usually default, and as a result, the bank's income decreases due to the need to increase loan loss provisions for such loans. Where commercial banks do not have an indication of what proportion of their borrowers will default, earnings will vary thus exposing the banks to an additional risk of the variability of their profits (Onyiriuba, 2009). Effective management of credit risk can enhance banks’ goodwill and depositors' confidence. Good performance can be achieved with good governance.

A finance company is a specialized financial institution that supplies credit for the purchase of consumer goods and services by purchasing the time-sales contracts of merchants or by granting small loans directly to consumers. Nepal Rastra Bank has categorized finance companies into the national level and province level. It has prescribed eighty crore rupees minimum paid-up capital for national-level finance companies and fifty crore rupees for province-level companies (Poudel et al, 2022).

There have been some improvements in the non-performing loans (NPL) of finance companies in recent years due to the effective regulations and supervision made by the regulatory agency. The NRB needs to be committed to its work of leading the financial sector development with the object of creating a sound, healthy and competitive environment in which non-bank financial institutions will be able to compete in this globalized market (Dhungana, 2011). Finance companies are exposed to high-risk loans. The higher accumulation of unpaid loans implies that these loan losses have produced lower returns for many banks. Most Nepalese finance companies are found to approve loans that are not well-examined.

This study is mainly concerned with the impact of credit risk on the earnings capacity of Nepalese finance companies (Class C financial institutions as per Nepal Rastra Bank classification). It may lead to the position of loan loss provision and non-performing loans. This
study addresses how credit risk affects finance companies’ earnings using a robust sample and how to tackle the effect of credit risk in order to enhance the quality of finance companies’ risky assets.

**Research Objectives**

The main objective of this study is to evaluate the relationship and impact between credit risk and the bank’s earnings performance of finance companies in Nepal. The specific purpose of the study is to analyze the relationship and impact among non-performing loan & impairment charges (loan loss provision) with interest spread rate, profit margin, and return on assets ratio of finance companies in Nepal.

**Literature Review**

Credit risk plays an important role in finance company revenue accrues from loans from which interest is derived. However, credit risk may be a serious threat to the performance of finance companies. Therefore, various researchers have examined the impact of credit risk on commercial banks in varying dimensions. The major studies related to the issue of credit risk and bank performance have been reviewed as follows:

Kithinji (2010) has assessed the effect of credit risk management on the profitability of commercial banks in Kenya. Data on the amount of credit, level of non-performing loans, and profits were collected for the period 2004 to 2008. The findings revealed that the profits of commercial banks are influenced by the amount of non-performing loans.

Dhungana (2011) has studied the overview of finance companies in Nepal. The major finding of the article is overall non-performing loan status of finance companies is 1.98 percent which reflects the satisfactory situation of the lending policy of finance companies. There have been some improvements in the non-performing loans (NPL) of finance companies in recent years due to the effective regulations and supervision made by the regulatory agency.

Bhattarai (2019) has observed the effect of credit risk on the performance of Nepalese commercial banks. The study concludes that credit risk management is crucial to bank performance since it has a significant relationship with bank performance.

Khadka (2021) has studied the credit risk management of commercial banks in Nepal. This study aims to examine the impact of credit risk management on the profitability of banks in Nepal. Secondary data was gathered from commercial banks of Nepal for ten years periods (2010/11-2019/20). The study revealed that there is a negative correlation between non-performing loans and net profit.

Most of the related empirical studies reported that there is a negative impact of non-performing loan and loan loss provisions on the profitability of sample banks.

**METHODODOLOGY**

The study is based on descriptive and causal-comparative research designs. This study establishes the cause-and-effect relationship between selected finance companies’ credit risk variables–impairment charge ratio and non-performing loan ratio and the earnings performance.
interest spread rate, profit margin, and returns on assets. The study is based on secondary data from sample finance companies by using financial and statistical tools. For this study out of seventeen finance companies of Nepal, four finance companies (24%) are selected as a sample for the period of 2074/75 to 2078/79. They are Nepal Finance Limited, Goodwill Finance Limited, Pokhara Finance Limited, and Manjushree Finance Limited.

Nepal Finance Limited, NEFINSCO, is the first and most matured Finance Company in Nepal among the private sector established in 2049/05/14. It has been the trendsetter in the market for innovating some of the very first products launched in Nepal like Hire Purchase and Margin Lending which became very famous later on. The Finance was incorporated under Company Act and acquired a license from Nepal Rastra Bank to perform financial transactions with its Head office at New Road, Kathmandu (Source: Home page of Nepal Finance Limited).

Goodwill Finance Limited is the leading provider of financial solutions with a unique mix of dedication and perfect execution. With the vision of providing the best financial services for success, Goodwill Finance Limited started its operation as a financial institution under the license of Nepal Rastra Bank in 2051 BS. It is a public limited company established under the Financial Company Act (Source: Home page of Goodwill Finance Limited).

Pokhara Finance Limited, a licensed financial institution by Nepal Rastra Bank (Central Bank of Nepal), was established in 2053 B.S. The prime objective of this finance company is to render banking services to the different sectors like industries, trade, business, priority sector, small entrepreneurship, deprived sector of the society, and every other people who need banking services (Source: Home page of Pokhara Finance Limited).

Manjushree is a Class 'C' Financial Institution licensed by Nepal Rastra Bank, established on 28 Ashoj 2064 as a National Level Finance Company with the paid-up capital of NRs. 1.35 billion, Manjushree today is one of the largest finance companies in the country (Source: Home page of Manjushree Finance Limited).

**Research Framework and Hypotheses**

The dependent variables and independent variables used in this study are as follows:

<table>
<thead>
<tr>
<th>Independent Variables (Credit risk)</th>
<th>Dependent Variables (Earnings performance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impairment charge to total loan ratio</td>
<td>- Interest spread rate (ISR)</td>
</tr>
<tr>
<td></td>
<td>- Profit margin (PM)</td>
</tr>
<tr>
<td>Non-performing loan to total loan ratio</td>
<td>- Return on assets (ROA)</td>
</tr>
</tbody>
</table>

**Description of Dependent Variables**

In theoretical literature, finance companies’ earnings capacity could be found such as traditional measures of earnings – profit margin (net profit after tax to gross operating income)
& return on assets (net profit after tax to total assets) and modern measures of earnings – interest spread rate (difference between average interest income rate and interest expenses rate). Profit margin (PM) indicates the earnings capacity of finance companies from the sum of major operating incomes like interest income, fee & commission income, and other operating income. Profit margin examines the quality of income to generate the net income of a firm. Return on assets (ROA) expresses the risk-taking behavior of bank management in obtaining the satisfied level of profit per unit of total resources. It shows the effectiveness of management in the utilization of assets. The interest rate spread is the difference between the average yield that a financial institution receives from loans along with other interest-accruing activities and the average rate it pays on deposits and borrowings which is a key determinant of a financial institution’s earnings performance. Thus, profit margin, return on assets and interest spread rate are chosen as the earnings performance for this study. It is hypothesized that finance companies’ earnings performance is influenced by credit risk elements.

**Description of Independent Variable**

**Non-performing loan ratio (NPLR)**

Non-performing loan ratio reflects the bank's credit quality and is considered as an indicator of credit risk management. According to NRB Directives 2/077, bank loans are classified into two categories viz. performing loans and non-performing loans. Pass loans (Not overdue/Overdue up to 1 month) and watch list loans (Overdue up to 3 months) are classified as performing loans and sub-standard loans (Overdue up to 6 months), doubtful loans (Overdue up to 1 year), and loss loan (Overdue for more than 1 year) are classified as a non-performing loan. Non-performing loan ratio, in particular, indicates how banks manage their credit risk because it defines the proportion of loan losses amount in relation to the total loan amount (Hosna et al, 2009). NPLR has been used as the default rate on total loans and advances. Gizaw, Kebede, and Selvaraj (2015) assert that the non-performing loan ratio (NPLR) is the major indicator of commercial banks' credit risk. They find that NPLR which measures the extent of credit default risk sustained by the banks showed a statistically significant large negative effect on profitability measured by ROA. Since it measures the default rate, a negative relationship could be expected between the non-performing loan ratio and the financial performance of commercial banks. However, empirical studies produce mixed results. Li and Zou (2014) and Ashanti (2015) found a positive effect of the ratio of the non-performing / gross loan on the financial performance of banks. Contrary to these findings, Felix and Claudine (2008), Kargi (2011), and Kodithuwakku (2015) found an adverse impact of non-performing loans on profitability. However, Kithinji (2020) asserted that the bulk of the profits of commercial banks is not influenced by the amount of non-performing loans. Jha and Hui (2021) found a negative association between the NPL ratio and ROA but the coefficient is statistically insignificant. Although there is conflicting evidence on this issue, in view of the theory and the majority of the empirical literature, a negative relationship is expected between non-performing loans and the earnings performance of finance companies.
Impairment charge ratio - ICR or Loan loss provision ratio-LLP

Banks are required to account for potential loan defaults and expenses to ensure they are presenting an accurate assessment of their overall financial health. According to NRB Directives 2/077, loan loss provision rates for pass loans, watchlist loans, sub-standard loans, doubtful loans, and loss loans are 1%, 5%, 25%, 50%, and 100% respectively of gross loans. Bank loan loss provision continue to receive much attention from bank regulators/supervisors and accounting standard setters because (i) banks' large amount of loan on their balance sheet makes them vulnerable to loan default arising from deteriorating economic conditions which affects borrowers' ability to repay, requiring banks to keep sufficient LLPs in anticipation of loan losses (Laeven & Mainoni, 2008), (ii) LLPs are often could worsen an existing recession if unanticipated, and this was evident at the peak of the 2008 global financial crisis as many banks significantly increased their LLP estimates which further eroded bank profit and led to losses that depleted bank capital, requiring Central Bank intervention, (iii) bank LLP is a significant accrual and bank managers have significant discretion in the determination of LLP estimates and such discretion can be exploited to meet opportunistic financial reporting objectives rather than solely for credit risk purposes (Wahlen, 1994), (iv) bank LLP estimate is a crucial micro-prudential surveillance tool that bank supervisors use to assess the quality of banks' loan portfolio, (v) bank LLP is also a crucial indicator of the informativeness of bank accruals from an accounting standard-setting perspective, and (vi) bank LLP has become the most debated accounting number in bank financial reporting after bank profitability and derivatives since the 2008 global financial crisis (Bhattarai, 2019).

Bank LLPs play a crucial role for bank stability and soundness while fulfilling their lending function to individuals and other firms. Therefore, bank regulators require banks to keep adequate LLPs to mitigate expected losses although there is no agreement among banks for what constitutes ‘adequate’ loan loss provisioning. Shah and Vongbusin (2019) assert that loan loss provision has a negative relationship with the profitability of banks. In view of the theory, a negative relationship is expected between non-performing loans and the earnings performance of finance companies.

Hypotheses

A hypothesis is a proposed explanation of the phenomenon regarding the parameters of the population on the basis of the sample drawn. In this article, hypothesis testing is used to test the significance of the relationship between dependent and independent variables.

Hypothesis 1: Interest spread rate significantly depends on the impairment charge ratio and non-performing loan ratio

Hypothesis 2: Profit margin significantly depends on impairment charge ratio and non-performing loan ratio

Hypothesis 3: Return on assets significantly depends on impairment charge ratio and non-performing loan ratio
Research Model

The models employed in this study intend to analyze the relationship between credit risk elements and earnings performance. The following regression model is used in this study in an attempt to examine the empirical relationship between the impacts of credit risk management on earnings performance of finance companies. Therefore, the following model equation is designed to test the hypothesis.

\[ ISR = \alpha + \beta_1 ICR + \beta_2 NPLR + e \]
\[ PM = \alpha + \beta_3 ICR + \beta_4 NPLR + e \]
\[ ROA = \alpha + \beta_5 ICR + \beta_6 NPLR + e \]

Where,
- \( \alpha \) = Constant term
- \( ICR \) = Impairment charge ratio [ Impairment charge (provision for loan loss) to total loan ratio]
- \( NPLR \) = Non-performing loan to total loan ratio
- \( e \) = Error term
- \( ISR \) = Interest spread rate
- \( PM \) = Profit margin
- \( ROA \) = Return on assets
- \( \beta \) = Beta coefficient

PRESENTATION AND DATA ANALYSIS

Descriptive Analysis

The descriptive statistics used in this study consists of mean, median, standard deviation, minimum and maximum values associated with the variables under consideration. Table 1 summarizes the descriptive statistics of variables used in this study during the period 2074/75 through 2078/79 for 4 sample finance companies of Nepal.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impairment charge ratio</td>
<td>20</td>
<td>0.95</td>
<td>100</td>
<td>18.15</td>
<td>31.29</td>
</tr>
<tr>
<td>(Provision for loan loss ratio)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-performing loan to total loan ratio</td>
<td>20</td>
<td>0.79</td>
<td>100</td>
<td>19.28</td>
<td>35.46</td>
</tr>
<tr>
<td>Interest spread rate</td>
<td>20</td>
<td>3.61</td>
<td>7.64</td>
<td>4.78</td>
<td>0.91</td>
</tr>
<tr>
<td>Profit margin</td>
<td>20</td>
<td>-13.08</td>
<td>81.86</td>
<td>22.96</td>
<td>21.52</td>
</tr>
<tr>
<td>Return on assets</td>
<td>20</td>
<td>-0.99</td>
<td>5.82</td>
<td>1.70</td>
<td>1.48</td>
</tr>
</tbody>
</table>

The average impairment charge of sample finance companies’ during the sample period is 18.15%. It indicates the banks set aside a portion of the expected loan repayments from all loans in their portfolio. It is an estimation of potential losses that a finance company might experience due to credit risk. Similarly, the average non-performing loan ratio of the sample companies is 19.28% that express the borrower is unlikely to repay the loan, or if more than 90 days have passed without the borrower paying the agreed installments. Non-performing loan
ratio is more volatile but the spread rate is more constant. The average interest spread rate is 4.78% which means the average interest income is more than interest expenses by 4.78%. The average net profit after tax to gross income is 22.96% which shows the strong profit-earning capacity of finance companies but the return on assets is comparatively low. It shows the quality of income and income statement position is strong but assets mobilization or balance sheet performance is poor.

**Test of Normality**

Normality tests are tests of whether a set of data is distributed in a way that is consistent with a normal distribution or not. Typically, they are tests of a null hypothesis that the data are drawn from a normal population, specifically a regression analysis. Test distribution of dependent variables should be normal in the regression analysis.

<table>
<thead>
<tr>
<th>Kolmogorov-Smirnov Normality Test</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N</strong></td>
</tr>
<tr>
<td><strong>Interest spread rate</strong></td>
</tr>
<tr>
<td>Normal parameters*</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Test Statistic</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
</tr>
</tbody>
</table>

The above table shows that the test distribution is normal and the parametric test is eligible for analysis.

**Correlation Analysis**

Correlation is a relationship between two variables. Correlation analysis is a statistical approach used to determine the level of association between two variables. It shows the direction of the change or movement between variables. A strong, or high, correlation means two or more variables have a strong relationship with each other while a weak, or low, correlation means that the variables are hardly related. Thus, Pearson’s correlation has been performed between dependent and independent variables and the results are presented in Table 2.

<table>
<thead>
<tr>
<th>Karl Pearson’s correlation coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Impairment charge ratio</strong></td>
</tr>
<tr>
<td><strong>(Provision for loan loss to total loan ratio)</strong></td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
</tr>
<tr>
<td><strong>Profit margin</strong></td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
</tr>
<tr>
<td><strong>Return on assets</strong></td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
</tr>
</tbody>
</table>

Correlation is significant at the 0.01 (i.e. 1%) level (2-tailed) as per SPSS.
Pearson correlation of interest spread rate and impairment charge ratio is found to be a high degree positive correlation and statistically significant ($r = 0.832$, $p < 0.01$). Similarly, the correlation between interest spread rate and non-performing loan ratio is also found high degree of positive correlation and is statistically significant ($r = 0.758$, $p < 0.01$). It shows that an increase in impairment charge ratio and non-performing loan ratio would lead to a higher interest spread rate and non-performing loan also earns interest income.

The correlation of profit margin and impairment charge ratio is found to be a low degree positive correlation but statistically insignificant ($r = 0.357$, $p > 0.01$). Similarly, the correlation between profit margin and non-performing loan ratio is also found low degree of positive correlation and statistically insignificant ($r = 0.332$, $p > 0.01$). In the previous literature, the relationship between return on assets and non-performing loan ratio was negative, but in this study, such a relationship seems low degree positive.

Regression Result

Regression analysis is a quantitative research method that is used when the study involves modeling and analyzing several variables, where the relationship includes a dependent variable and one or more independent variables.

Testing of hypothesis 1: Interest spread rate significantly depends on impairment charge ratio and non-performing loan ratio

<table>
<thead>
<tr>
<th>Table 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Summary</td>
</tr>
<tr>
<td>Coefficients</td>
</tr>
<tr>
<td>[Unstandardized Beta Standardized Beta]</td>
</tr>
<tr>
<td>Constant ($\alpha$)</td>
</tr>
<tr>
<td>Impairment charge</td>
</tr>
<tr>
<td>Non-performing loan</td>
</tr>
</tbody>
</table>

Source: Annual report of sample companies and results are drawn from SPSS-26.

Table 4 presents the regression results of the effect of credit risk (impairment charge ratio and non-performing loan ratio) on earnings performance (interest spread rate) of sample finance companies of Nepal. The value of adjusted $R^2$ is 0.798 or 79.8%. The overall explanatory power of the regression model is fair. This indicates that 79.8% of the variation in earnings performance of finance companies can be explained by the variation in the explanatory variables and the remaining 20.8% is explained by other factors. The model with a higher value of adjusted R-squared is considered to be a better model.

The calculated F-value (2, 17) is 38.474 which is more than the tabulated F-value of 3.59 at a 5% level of significance, and the p-value for F statistics in the model is 0.000 which is less than 0.05 representing that the model is fairly fitted well statistically. Hence, hypothesis 1
is accepted and it is concluded that the interest spread rate significantly depends on the impairment charge ratio and non-performing loan ratio.

The impact of the impairment charge ratio and non-performing loan ratio on the interest spread rate are 0.084 and 0.053 (unstandardized beta) respectively. It means a 1% increase in impairment charge ratio and non-performing loan ratio positively affects the interest spread rate by 0.084% and 0.053% respectively. The impairment charge ratio more affects to interest spread rate because the standardized beta of ICR is more than NPLR. The independent variables chosen for the model are best suited for regression analysis. The model can fit:

\[ \text{ISR} = \alpha + \beta_1 \text{ICR} + \beta_2 \text{NPLR} + e \]
\[ = 4.288 + 0.084 \text{ICR} + 0.053\text{NPLR} + e \]

Testing of hypothesis 2: Profit margin significantly depends on impairment charge ratio and non-performing loan ratio

Table 5

<table>
<thead>
<tr>
<th>Model Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coefficients (Unstandardized Beta, Standardized Beta)</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Constant (α)</td>
</tr>
<tr>
<td>Impairment charge ratio</td>
</tr>
<tr>
<td>Non-performing loan</td>
</tr>
</tbody>
</table>

Source: Annual report of sample companies and results are drawn from SPSS-26.

Table 5 presents the regression results for the effect of credit risk (impairment charge ratio and non-performing loan ratio) on the earnings performance (i.e. profit margin) of sample finance companies. The value of adjusted R² is 0.039 or 3.9%. It indicates that only 3.9% of the variation in earnings performance of finance companies can be explained by the predictor variables and the remaining 96.1% is explained by other factors. The model with a lower value of adjusted R-squared is not considered to be a better model.

The calculated F-value (2, 17) is 1.382 which is less than the tabulated F-value of 3.59 at a 5% level of significance, and the p-value for F statistics in the model is 0.278 which is greater than 0.05 represent that the model is not satisfied and there is insignificant relationship between independent and dependent variables. Hence, hypothesis 2 is rejected and it is concluded that the profit margin does not depend on the impairment charge ratio and non-performing loan ratio.

Unstandardized beta shows that the impact of the impairment charge ratio on the interest spread rate is 0.69 but the non-performing loan ratio’s impact on the interest spread rate is -0.398. The independent variables chosen for the model are not suited for regression analysis. The model can be expressed as:

\[ \text{PM} = \alpha + \beta_1 \text{ICR} + \beta_4 \text{NPLR} + e \]
\[ = 18.121 + 0.69 \text{ICR} - 0.398 \text{NPLR} + e \]
Testing of hypothesis 3: *Return on assets significantly depends on impairment charge ratio and non-performing loan ratio*

**Table 6**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>F-Value (2,17)</th>
<th>P-value (Significant)</th>
<th>Adjusted R²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardized Beta</td>
<td>Standardized Beta</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant (α)</td>
<td>1.379</td>
<td></td>
<td>1.328</td>
</tr>
<tr>
<td>Impairment charge ratio –</td>
<td>0.024</td>
<td>0.516</td>
<td></td>
</tr>
<tr>
<td>Non-performing loan ratio</td>
<td>-0.006</td>
<td>-0.152</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Annual report of sample companies and results are drawn from SPSS-26.*

The value of adjusted R² is 0.033 or 3.3%. It directs that only 3.3% of the variation in return on assets can be explained by the predictor or independent variables and the remaining 96.7% is explained by other factors. The model with a lower value of adjusted R-squared is not considered to be an appropriate model. The calculated F-value (2, 17) is 1.328 which is less than the tabulated F-value of 3.59 at 5% level of significance, and the p-value for F statistics in the model is 0.291 which is greater than 0.05 represent that the model is not fulfilled and there is insignificant relationship between independent and dependent variables. Hence, hypothesis 3 is rejected and it is concluded that return on assets does not depend on the impairment charge ratio and non-performing loan ratio.

Unstandardized beta shows that the impact of the impairment charge ratio on return on assets is 0.024 but the non-performing loan ratio’s impact on the interest spread rate is -0.006. The independent variables selected for the model are not suitable for regression analysis. The model can be stated as:

\[
PM = \alpha + \beta_3 \text{ICR} + \beta_4 \text{NPLR} + e \\
= 1.379 + 0.024 \text{ICR} - 0.006 \text{NPLR} + e
\]

**Findings and Discussion**

The finding of this study supports hypothesis 1 but does not support hypotheses 2 and 3. As expected, impairment charge ratio and non-performing loan ratio significantly affect finance companies’ interest spread rate but profit margin and return on assets are not associated with impairment charge ratio and non-performing loan ratio. The result is similar to the findings of Fredrick (2012); Kargi (2011); Kodithuwakku (2015), Shah and Vongbusin (2019), where they found a negative association between non-performing loans and banks’ performance who found loan loss provision and non-performing loan ratio has a negative relationship with return on assets of banks. The result is contrary to the findings of Li and Zou (2014) and Ashanti (2015) who found the positive effect of non-performing /gross loans ratio on the financial performance of banks.
CONCLUSION

The main purpose of this study is to investigate the impact of credit risk on the earnings performance of Nepalese finance companies. Four finance companies’ 20 observations for the period of 2074/75 to 2078/79 have been used for the analysis. The regression model exposed that impairment charge ratio and non-performing loan ratio are independent variables whereas interest spread rate, profit margin, and return on assets are the dependent variable.

This study has found a significant and positive relationship between interest spread rate and credit risk indicators, non-performing loan ratio has an insignificant and negative effect on earnings performance and impairment charge ratio (i.e. loan loss provision ratio) has an insignificant but somewhat positive effect on earnings performance of finance companies of Nepal.

Policy Implications

Based on the findings from the empirical analysis, the study offers the following recommendations through which they can work to improve credit risk management and have an effective role in achieving better earning performance, especially return on assets. The negative coefficient of the 'non-performing loan ratio' with finance companies’ earnings performance indicates that there is a higher level of loan loss provision charged against profit and eventually reduces performance (ROA). Thus, Nepalese finance companies should strictly follow the prevailing NRB Directive as well as Basel II Accord while managing credit risk, and finance companies should use their effort to reduce the non-performing loan.

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