



Sudurpaschim Spectrum

A Multidisciplinary, Peer Reviewed Journal

ISSN: 3021-9701 (Print)

DOI: <https://doi.org/10.3126/sudurpaschim.v3i1-2.90854>

Published by Faculty of Humanities and Social Sciences
Far Western University, Mahendranagar, Nepal

Perception Regarding Determinants of Commercial Bank Interest Spread and Profitability

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Abstract

This study analyses the determinants of interest spread and profitability by examining the perception of the bank executives. The study was based on the primary data that were collected from sixteen commercial banks of Nepal. Purposive sampling method was employed while selecting the sample banks and respondents. Both the old and relatively new banks were selected. Online questionnaire was designed and mailed to 153 bank officials and out of mailed questionnaires, only 105 responses were received in usable form. The analysis of primary data was based on frequency distributions, cross-tabulation, and mean ranking score from five-point Likert-scale. The purpose of analyzing primary data was to examine the perceived understanding of bank officials in reference to determinants of interest spread and bank profitability in Nepali banking system. The primary data analysis revealed an important role of interest spread in profitability of the banking sector. The results further indicated that management efficiency and bank specific characteristics are the most important factors determining interest spread and profitability of banking sector in Nepal. The findings have important implications to formulate the policy in managing interest spread and profitability of the commercial banks.

Keywords: Interest spread, Profitability, Bank characteristics, Macro-Economic variables, Financial structure, Regulations

Introduction

There is a growing concern on stability of banking system due to important role in economic growth. As financial intermediaries' banks play a crucial role in the operation of most economies, the effectiveness of intermediation role of banking system depends upon the efficiency of the banks and the economic environment where they operate. The efficiency of intermediation process can be measured as the level of intermediation cost and it depends upon the interest rate that the banks face as financial intermediaries (Demirguc-Knut & Huizinga, 1999). The fluctuation of interest rates creates interest risk to the banks. Interest rate risk has significant implications on borrowing cost of the borrowers, returns of the investors, and profitability of the banks. The greater the spread, the more profitable the financial institution is likely to be; and the lower the spread, the less profitable the institution is likely to be (Claeys & Vennet, 2008). Thus, there is a close relationship between interest spread and profitability of the banks.

Interest spread could be interpreted as an indicator of the efficiency of the banking system. The banking system having low net interest margin is considered to be an efficient banking system, however, low interest spread cannot always be taken positively, especially in liberalized, but poorly regulated environments (Doliente, 2003). Net interest margin, return on assets, and return on equity are part of a standard set of bank's performance indicators and net net interest margin or interest spread is generally considered as a better performance measure of banks' long-term revenue structure (Holton et al., 2013).

It is important to understand the factors affecting net interest margin and profitability of banks (Uger & Erkus, 2010). Therefore, the impact of different factors on net interest margin and profitability has been empirically well explored in various banking systems. According to Doliente (2003), the determinants of bank's interest margin vary as per country specific situation. Thus, the impact of same variables on interest spread and profitability might be different in various economies.

Bank interest spread has several important implications on effective resource mobilisation for the business sector's growth. High interest spread tends to discourage potential savers, limiting the quantum of funds available to potentials borrowers. Similarly, a reduction in lending arising from low savings often leads to downward investment and thus, the low economic growth of the country (Akinlo & Owoyemi, 2012). Saunders and Schumacher (2000) also opined that narrow interest margin may be an indication of relatively competitive banking system with a low level of intermediation costs.

The banking systems in most of the developing and underdeveloped countries are subject to structural, informational, and institutional inefficiencies leading to high net interest margin of commercial banks (Afzal, 2011). According to Demirgüç-Kunt and Huizinga (1999), the interest spread of the banking system is higher in developing economies as compared to developed economies. Lower net interest margin usually marks more developed financial markets that encourages investment activities, and supports economic growth. The lower the banks' net interest margin, the lower would be the social costs of financial intermediation (Maudus & Guevara, 2004). It indicates a fact that the cost of financial intermediation or net interest margin is related with the level of expansion in economic activities in the economy. Therefore, higher interest spread is a major challenge for the developing or underdeveloped economies

Many empirical studies such as Samuelson (1945); Pyle (1971); Hempel and Yawitz (1974); Ho and Saunders (1981); Hanson and Rocha (1986); Bartholdy et al. (1997); Demirguc-Kunt and Huizinga (1999) have examined that bank interest spread and profitability are affected by several internal and external factors. The internal factors might include the business strategies on assets and liability growth, diversification of business, risk management system (credit risk, interest rate risk, liquidity risk, operation risk, and foreign exchange risk) innovation etc. These are the controllable factors however; bank management's efficiency level is also equally important to control these factors for the desired outcome of the bank. Banking business is also affected due to external factors such as changes in regulation, growth in number of banks and competition, fiscal policy of the government, macro-economic environment and changes in technology etc. These factors are beyond the control of bank management and the business plans of the banks are primarily guided by these factors. Therefore, interest spread and profitability management is a crucial function in the banks. Thus, early studies on interest spread and bank profitability set a foundation for further investigation, indicating the importance of bank interest spread and profitability.

Later studies have also focused to examine the factors determining interest spread and profitability across all the major economies based on the data from multi-countries or single country. Naceur and Goaid (2008) examined the impact of banks' characteristics, financial structure and macro-economic indicators in Tunisian banking system. Doliente (2003) in South East Asian countries; Ewijk and Arnold (2013) in US; Dumitic and Ridzac (2013) in Central and Eastern European Countries banking system confirmed the effectiveness of bank specific factors on net interest margin or interest spread. Staikouras and Wood (2011) also found bank specific factors and macro-economic indicators responsible, influencing profitability in European Union.

Recent empirical studies have continued to show the significant impact of bank specific factors on net interest margin and bank profitability in both emerging and developed money market. For example, Dahal et al. (2025) examined that the higher net interest margins significantly increase bank profitability along with the other variables such as inflation. Similarly, Chand et al. (2024) examined that the bank specific factors such as net interest margin, non-interest income, bank size, and capital adequacy ratio are significantly correlated with bank profitability. Mulbah et al. (2024) examined that bank specific variables positively and significantly effect on the bank performance.

This situation indicates that the banks cannot always increase profitability level in long term by increasing simply interest spread. It is always a challenge for the banks to increase the profitability level maintaining an acceptable level of interest spread by making a proper balance between internal and external factors that directly and indirectly affect the banks' performances. All these phenomena indicate an urgent need to examine the factors influencing interest spread and profitability in Nepali banking system. Though there are several findings on the determinants of interest spread and profitability in developed and developing economies, no such comprehensive findings using more related variables are yet available in Nepali context. Thus, this study focuses on filling this gap by examining the perceptions of bank executives regarding the interest spread or net interest margin and profitability in Nepali banking system. The findings of the study will have significant implications to understand the factors affecting interest spread and to resolve the problem of high interest spread controlling the relevant factors.

Methods and Materials

This study adopted research design to deal with the fundamental issues associated with the net interest margin and profitability of commercial banks in Nepal. The descriptive research design was adopted for fact-finding and gathering adequate information about the factors affecting net interest margin and profitability. Further, the descriptive research design was adopted to assess the opinions, perceptions and, characteristics of respondents i.e. bank officials.

The primary data were collected from the selected bank officials developing a structured set of survey questionnaire. The basic objective of collecting primary data was to analyze the perceived understanding of bank specific characteristics, macro-economic indicators, financial structure, and regulation as the determinants of interest spread and profitability in Nepali banking context. In addition, primary data analysis was used to understand the general ideas of practitioners on interest spread and profitability of the bank and the impact of bank specific characteristics, macroeconomic

indicators, financial structure, and regulation on net interest margin and profitability of Nepali banking system.

An online survey questionnaire was prepared and mail survey method was followed to collect the primary data. The purposive sampling method was applied and sixteen commercial banks were selected as the sample banks. The online questionnaires prepared on google form was emailed to total 153 respondents. Out of total online questionnaire distributed through email, 105 responses were received in usable form. The response rate of the survey was 68.62 %.

Results and Discussion

This section presents the results obtained from the analysis. Firstly, the profile of the respondents is presented and the results obtained from the respondents are presented and analyzed in the subsequent sections.

Profile of Respondents

The demographic profile of the respondents has been presented in table 1.

Table 1

Profile of Respondents

Characteristics	Number	Percentage
Gender		
Female	15	14.29
Male	90	85.71
Total	105	100.00
Age group		
25 or below	1	.95
26-30	5	4.76
31-35	26	24.76
36-40	45	42.86
41-45	21	20.00
46-50	7	6.67
Total	105	100.00
Position		
Executive Level	10	9.52
Managerial Level	29	27.62
Officer Level	66	62.86

Total	105	100.00
Area of Responsibility		
Credit	60	57.14
Finance	29	27.62
Operation	3	2.86
Treasury	13	12.38
Total	105	100.00

The respondents were asked about their gender, age group, position, and area of responsibility in their respective organizations. As shown in Table 1, out of total respondents male and female ratio was 85.71 % and 14.29 % respectively. The majority of respondents were from 36 – 40-year age group and total participants of this age group were 42.86 %. There was only one respondent below 25-year group age. The respondents from highest age group were from 46 – 50, which was 6.67 % of total respondents. There were 62.86 % officer levels, 27.62 % managerial level, and 9.52% from executive level respondents. In terms of area of responsibility, majority of the respondents were from credit (57.14 %) followed by finance department (i.e. 27.62 %). The lowest respondents were 2.86 % from operation area.

Impact of Net Interest Margin on Profitability

Respondents were asked to present their view about the impact of net interest margin on profitability of the bank. They were asked to indicate their perceived preference as very important, important, less important, and not important at all. Table 2 presents the role of net interest margin on profitability.

Table 2

Role of Net Interest Margin on Profitability

Importance	No of respondents	Percentage
Very important	96	91.42
Important	9	8.58
Less important	0	0
Not important at all	0	0
Total	105	100.00

Table 2 presents perceived view of respondents on role of net interest margin on profitability of

banks. The results revealed that 91.42% respondents perceived very important and 8.58 % important role of net interest margin, determining the profitability of the banks in Nepali context. None of the respondents indicated less important or not important at all. This finding supports the large body of existing literature such as Samuelson (1945); Pyle (1971); Hempel and Yawitz (1974); Ho and Saunders (1981); Hanson and Rocha (1986); Bartholdy et al. (1997); Demircuc-Kunt and Huizinga (1999).

Factors Affecting Net Interest Margin and Profitability

The respondents were asked to rank bank specific factors, macro-economic indicators, financial structure, regulations, and other factors as the determinants of net interest margin and profitability in Nepali banking system. The perceived preference over these factors ranged minimum one to maximum five, indicating very low to very high preferences.

Table 3

Factors Affecting Net Interest Margin of the Banks

Factors affecting net interest margin and profitability	Rank					Mean	SD	Overall Rank
	Very Low				Very High			
Bank specific factors	0	1	21	31	52	4.28	0.81	1
Macro-Economic Indicators	1	4	33	39	28	3.85	0.90	2
Financial Structure	1	10	40	37	17	3.56	0.91	3
Regulations	19	39	24	14	9	2.57	1.18	4
Others	23	51	24	7	0	2.14	0.84	5

Table 3 presents the number of responses of each factor, mean ranking scores, standard deviation, and overall rank. The survey results indicated that the bank specific factors were the most important determinants (mean ranking score 4.28) of net interest margin and profitability in Nepali banking system. The second important determinant as perceived by the bank officials were macro-economic indicators with a mean ranking score of 3.85. Financial structure was placed in the third ranking followed by regulations and other factors. Thus, it is concluded that bank specific factors, macro-economic indicators, financial structure, bank regulations are also the major factors affecting interest spread in Nepali commercial banks. These findings are inline with the large body of existing literatures such as Naceur and Goaid (2008); Doliente (2003); Ewijk and Arnold (2013), and Dumitic and Ridzac (2013).

Volatility of Net Interest Margin and Profitability

The respondents were asked to indicate their responses on volatility of net interest margin and profitability. The responses were measured in five categories i.e. very high, high, medium, low and very low.

Table 4

Volatility of Net Interest Margin and Profitability

Degree of Responses	Volatility of Net Interest Margin and Profitability	
	No.	Percentage
Very high	7	6.67
High	64	60.95
Medium	34	32.38
Low	0	0
Very low	0	0
Total	105	100

Table 4 presents the observed responses on volatility of net interest margin and profitability. The results revealed that majority of respondents (60.95 %) believed that the volatility of net interest margin and profitability was high in Nepali banking system and 32.38 % of respondents indicated a medium level of volatility. Similarly, only 6.67 % of respondents perceived that there was very high volatile nature of interest spread and profitability in Nepali banks.

Management Efficiency, Interest Rate Variation and Importance of Interest Spread and Profitability in Economy

Respondents were asked to indicate their response in Yes/No form about management efficiency as one of the determinants of net interest margin and profitability, interest rate variation across the banks and importance of net interest margin and profitability in economy.

Table 5

Management Efficiency, Interest Rate Variation and Importance of Interest Spread and Profitability in Economy

Responses	Management Efficiency as the Determinant of Interest Spread and Profitability		Interest Rate Variation across the Banks		Importance of Interest Spread and Profitability in Economy	
	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
Yes	89	84.8	86	81.9	103	98.1
No	16	15.2	19	18.1	2	1.9
Total	105	100	105	100	105	100

As shown in Table 5, majority (84.8 %) of bank officials perceived that management efficiency was one of the important factors, determining net interest margin and profitability in Nepal. However, 15.2 % believed that the determinants of interest spread and profitability of the banks in Nepali context were other than management efficiency of the banks. A majority of the bank officials (81.9 %) believed on interest rates variation across the commercial banks in Nepal. Similarly, 98.1% respondents favored that interest spread and profitability play an important role in the economy.

Revision of Interest Rates

The respondents were asked to indicate their response on frequency of interest rates revision in the banks. The options were provided as annually, semi-annually, quarterly, monthly and as and when required.

Table 6

Revision of Interest Rates

Frequency of Interest Rate Revision	No.	Percentage
Annually	0	0
Semi-annually	0	0
Quarterly	40	38.1
Monthly	0	0
As and when required	65	61.9
Total	105	100.0

The survey results as shown in Table 6 indicated that 61.9 % respondents revise their interest rates on as and when required basis and 38.1 % respondents revise their interest rate on quarterly basis.

Observations on the Determinants of Net Interest Margin and Profitability

The respondents were asked to rate thirteen statements representing the bank specific variables, macro-economic indicators, financial structure, and regulation as the determinants of net interest margin and profitability in Nepali context. The statements were designed in five-point Likert scale, indicating 1 as strongly disagree to 5 as strongly agree.

Table 7 summarizes the number of responses in each scale along with mean scores, standard deviations and overall rank assigned by the respondents.

Table 7

Observations on the Determinants of Net Interest Margin and Profitability

Statements representation of determinants of interest spread and profitability of banks	Level of Responses					Mean	SD	Rank
	1	2	3	4	5			
Non-performing loan (NPA) influences interest spread and profitability of the bank.	0	2	2	13	88	4.78	0.571	1
Total loan to total assets affects the interest spread and profitability of the bank.	0	0	5	27	73	4.65	0.571	2
The size of liquid fund to total assets affects the interest spread and profitability of the bank.	0	0	8	42	55	4.45	0.635	3
Total deposit to total assets influences the interest spread and profitability of the bank.	0	0	5	59	41	4.34	0.569	4
Non-interest earning to total assets determines the interest spread and profitability of the bank.	0	0	7	60	38	4.30	0.587	5
Inflation rate affects the interest spread and profitability of the bank.	0	1	17	41	46	4.26	0.760	6
The size of overhead cost to total assets determines the interest spread and profitability of the bank.	0	1	15	53	36	4.18	0.704	7
The Cash Reserve Ratio (CRR) affects the interest spread and profitability of the bank.	0	2	21	43	39	4.13	0.797	8
The size of capital fund affects the interest spread and profitability of the bank.	0	0	26	49	30	4.04	0.733	9
GDP growth rate impacts the interest spread and profitability of the bank	0	2	23	57	23	3.96	0.720	10

Remittance growth affects the interest spread and profitability of the banks.	0	7	17	58	23	3.89	0.847	11
Total assets growth of entire banking sector affects the interest spread and profitability of the bank	0	7	30	56	12	3.70	0.761	12
The ratio of total assets of three largest banks to entire banking sector assets (concentration) affects the interest spread and profitability of the bank.	0	17	43	35	10	3.36	0.867	13

Table 7 presents thirteen statements related with bank specific variables, macro-economic indicators, financial structure, and regulation. The statements were developed in line with the explanatory variables as analyzed empirically.

The mean scores below three indicate the general disagreement with the statements and those above 3 represents the agreement with the respective statements.

The mean score of all the statements found above three. The results indicated that there was full consensus among the respondents on the statements, indicating that all bank specific variables, macro-economic indicators, financial structure, and regulations influence the interest spread and profitability in Nepali banking system. The respondents perceived that non-performing assets of the bank was the most important determinant of interest spread and profitability of the banks. Loan to total assets ranked in second position followed by liquid fund to total assets. As per the survey results, concentration was the lowest influencing factor of interest spread and profitability of the banks in Nepali banking context. The top five ranking statements were related with bank specific variables, indicating most important role on interest spread and profitability of the banks as perceived by the bank officials.

Thus, the survey results provided a perceived view of the bank officials or practitioners on the determinants of interest spread and profitability of the banks in Nepali banking context. The banking sector efficiency can be measured based on net interest margin or interest spread of the banking sector. High interest spread of the banking sector is considered to be an indication of inefficiency of economy that discourages commercial bank's lending, resulting high intermediation cost. There is also a close relationship between interest spread and profitability of the bank. High interest spread tends to increase the profitability of the banking sector, but it is difficult to maintain a high interest spread maintaining the quality of loan portfolio. Too low interest spread also discourages the saving mobilization in banking sector. Therefore, there is always a challenge to maintain a reasonable level of interest spread for the banking sector.

The results indicate that management efficiency and bank specific characteristics are the most important factors determining interest spread and profitability of commercial banking sector in Nepal. These findings align strongly with the existing body of the literature on bank interest spread and profitability. Consistent with classical banking theory and foundational empirical research, the study shows that net interest margin remains a key driver of bank profitability, reflecting efficient intermediation and effective income generation. Early works by Ho and Saunders (1981) and Demircuc-Kunt and Huizinga (1999) similarly argue that interest spread is central to bank earnings, shaped largely by internal bank factors such as management efficiency and asset quality. Recent empirical evidence reinforces the similar view in contemporary contexts such as Dahal et al. (2025); Chand et al. (2024); Mulbah et al. (2024) confirmed that net interest margin, operating costs, and risk factors significantly influences profitability. Similarly, macroeconomic variables such as inflation, GDP growth and policy regulations factors are also as important as the bank internal determinants which interact to shape interest margins and bank profitability. In the alliance of mixture of older and newer evidence, the conclusion of the study shows the sustainable bank profitability depends on the internal management, economic conditions and the cost control mechanism rather than interest spread alone.

Conclusion

The study concludes that interest spread and profitability of Nepali banking system are subject to change in bank specific characteristics, macro-economic indicators, financial structure, and regulation. The specific conclusions drawn from the study are increase in loans and advances to total assets, non interest earning to total assets, GDP growth, and inflation supports to increase interest spread and profitability. The growth in deposits total assets, non-performing loans to total loans, size of banking sector growth, and concentration of assets in three largest banks to total assets of entire banking sector reduces the banks' interest spread and profitability. Similarly, increase in overhead cost to total assets tends to increase interest spread, but bank's profitability decreases along with the growth in overhead cost to total assets. The growth in remittance income and cash reserve ratio reduces the interest spread of the banks. Based on the foregoing conclusions, the following policy implications have been proposed: The findings of this study are important in the context of NRB's guideline on interest spread and its determinants. Therefore, the findings of the present study can be an important basis to understand the factors affecting interest spread in Nepali banking system. The findings help to formulate policies on interest spread and profitability management of the banks.

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