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Measuring Effects of Interest Rate Fluctuations on Retail Loan Holder in Metropolitan City: Evidence from Nepal

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Abstract

Background: Interest rate fluctuations have long been a critical research topic, particularly in relation to retail loan holders. In Nepal, the status of retail loans has been progressively improving, making it essential to understand how interest rate changes affect retail loan borrowers in Kathmandu Valley.

Objective: This study aims to investigate the impact of interest rate fluctuations on retail loan holders in Kathmandu Valley. It seeks to determine how these fluctuations influence banking performance and retail loan products in the context of Nepalese financial institutions.

Method: A descriptive research design was employed, focusing on retail loan holders from Nepalese financial institutions in Kathmandu Valley. A sample of 383 retail loan borrowers was selected using simple random sampling. Data were collected via a structured questionnaire. The analysis involved descriptive statistics, correlation, regression, as well as pre-estimation and post-estimation techniques.

Result: The findings indicate that interest rate fluctuations have a positive and significant impact on retail loan products offered by Nepalese banking institutions. Higher interest rates tend to enhance retail loan offerings, contributing to improved banking performance and increased creativity in loan practices.

Conclusion: The study underscores the positive role of interest rate fluctuations in shaping retail loan products and banking performance in Nepal. It suggests that financial institutions could benefit from adjusting their interest rates to foster better loan practices and improve overall performance. For economic benefit, banks should consider lowering interest rates and providing attractive returns to depositors to balance their profitability and enhance financial stability. This research provides a foundation for further academic exploration into the effects of interest rates on retail loan behavior.

Paper Types: Research Paper

Keywords: Interest rate, Retail banking products, Ordered logistic model, Kathmandu valley.

JEL Classification: G1, E43, G21 and G41

Introduction

For clients who holds loan in the bank, interest rate plays a vital role across the world (Hurley et al., 2018). Interest rate basically is the charge levied for the usage of money (Rosenberg et al., 2009). According to Ngugi (2001), the rate of interest, like the cost of borrowing, represents information extracted from the market regarding changes in purchasing power of money or projected inflation. Su and Chang (2010) point out that in this case, financial institutions may easily fix their borrowing rate based on a certain indicator relative to the deposit rate. According to Timsina (2015), credit is believed to be the most important factor in economic growth and financial stability. The interest rate is actually a ratio of two types of interest. The rate of interest is computed by multiplying the money borrowing costs by the amount borrowed, generally in rupees per year per rupee borrowed (Berger & Udell, 1995).

Rose (2000) argues higher interest rates tend to restrict borrowing and capital investment, whereas lower interest rates encourage borrowing and investment spending. A high interest rate environment, according to Healey (2013), would produce winners and losers throughout the global economy. While a sharp escalation in interest rates is unlikely in the short term, there is widespread assumption that such a hike is not only possible, but also likely to occur swiftly, affecting practically every significant area of the economy (Healey, 2013). According to Mnang et al. (2016) interest rates are important because they affect the circulation of money in the economy. According to Timsina (2015), banks' loan and advances play a critical role in monetary transmission since monetary policy is implemented through banking performance, particularly lending. In this situation, the State Bank of Pakistan (2006) said that a significant deposit-lending rate margin not only indicates inefficiency in the banking system, but also the degree of expansion in the financial sector. In this sense, Kayode et al. (2015) argue that loans constitute part of a financial institution's assets because they are intended to earn interest over time.

Over the last two decades, organizations that make microcredit to small lenders in emerging economies have progressively focused on making lending activities financially viable by charging interest rates sufficient to cover all of their costs, according to Rosenberg et al. (2009). Beside the fact that the bulk of these studies were conducted in different areas and countries, a few of them have noticed both the reasons of big interest rate spreads and their repercussions on the economy and bank profitability (Sheriff & Amoako, 2014). Mutinda (2014) believes that higher interest rates will have a detrimental influence on major variables such as GDP, FDI, and inflation, putting pressure on corporate entities and the broader national economy. As a result, Acharya (2018) investigated how interest rates can be reduced when a borrower asks their creditor to fix the interest rate on their loan for the credit period. To execute interest rate policy, a specific supply of money policy must be employed, and this monetary policy must be executed by transfer payments, market operations, or both (Lucas, 1982).

Similarly, Diebold and Sharpe (1990) claim that when policymakers announce an interest rate adjustment, Financial institutions may alter their borrowing costs asymmetrically i.e., they may raise lending rates much more swiftly when industry interest rates rise than they are ready to cut borrowing costs when market interest rates drop. The zero interest rate floor is not taken into consideration by the interest rate feedback rules presented by (McCallum, 1993), which describe a central bank's interest-rate-setting behavior as a linear function of inflation and the output gap. As a result, the (limited) money supply and demand are only "important to the question of how the central bank must adjust the instruments under its direct control in order to fulfill its operational objectives on interest rates" (Woodford, 2003).

In Nepal, the banking industry is characterized by a low turnover rate (Devkota, 2020), an increasing interest rate on loans, a substantial interest rate, inadequate management, a lack of investment financing options, insufficient operating capital, and unfriendly rivalry amongst banks (Rijal, 2014). Banks in

Nepal must maintain their status as primarily financial organizations, focusing on growing profits through banking services rather than projections in real estate. According to Bhattarai (2016), most Nepalese commercial banks approve credits that aren't thoroughly scrutinized. Defaults and bad debts may rise as a result of this. As a result, the present credit risk management methods are insufficient to meet Nepal's current financial and economic concerns. The banking business in Nepal is characterized by a low turnover volume, a high interest rate on loans, a large interest rate, inefficient management, a lack of project financing strategies, an inadequate work budget, and unhealthy bank competition. Credit risk in Nepalese commercial banks changes inversely with GDP development in terms of GDP growth. In Nepalese commercial banks, however, the interbank interest rate has a negligible negative influence on credit risk (Poudel, 2018). The most serious problem in the Nepalese credit industry is that lenders fail to understand clients' genuine requirements, instead providing loans to raise their investments and minimize the cost of idle capital because of many bad loans (Shrestha, 2013).

For a long time, factors of interest rate drivers have been a source of contention in Nepalese banking sector. The discussion's underlying issue is that the rate of borrowing from Commercial banks in Nepal has been quite high for too long, restricting access to loans and impeding economic progress. When comparing loan rate trends, it is clear that loan rate rises always have a significantly larger range than loan rate decreases. Despite a recent trend toward lower loan rates and narrower spreads, they remain rather high. The impact of reduced lending rates, on the other hand, will be decided by how banks determine interest rates (Bhattarai, 2017). Credit risk management is presently the key risk management role in banks, and credit portfolio management is crucial for effective credit risk management. The lending procedure describes how it maintains its lending activities (Malla, 2018). In the Nepalese setting, just a few studies on banking interest rates have been undertaken. As a result, this study undertakes how banking loans effect customer behavior, particularly in the retail sector of Nepalese banking. The results of the investigation may also be used to indicate the implications needed to satisfy the standards. In nutshell, this research contributes to the evaluation of loan applications as well as the formulation of plans and tactics for financial institutions to make loans economically competitive to clients and meet their needs.

Further part of study is organized as second section which reveals methodology of the study followed by findings generated and last section concludes the study.

Research Method

Theoretical Framework

Economic growth, money supply, inflation rate, exchange rate, market demand and supply, bank lending policy, and so on are all factors that impact the interest rate (Paudyal, 1996). Several economists have developed various interest rate theories that explain how the interest rate is decided in different conditions. Five theoretical techniques can be used to investigate the interest rate phenomenon. Deposit theory, contemporary banking theory, classical theory, loanable fund theory, and liquidity preference theory are the different types of theories. Modigliani (1944) examined the determinants of the pure or risk-free rate, which is one of the earliest ideas (classical theory) in this regards. Numerous British economists developed it over the nineteenth and twentieth centuries, and Fisher developed it in 1930. According to him, interest rates are regulated by two forces: the supply of savings, which is mostly decided by the family, and the demand for investments and capital, which is primarily driven by the business sector. Similarly, Mutinda (2014) observed that under Classical theories, the payment of the interest rate is viewed as a compensation for deferring present consumption in favor of larger consumption. Pal (2018) also found that a higher interest rate makes saving more appealing than consumer spending because it encourages consumers to replace current savings with a specific level

of current consumption. For the so-called replacement effect to function, there must be significant relationship between the interest rate and the amount saved.

Similarly, second approach of this theory is the loanable fund theory. Tumwine et al., (2018) expressed a view that goes beyond the money of the limits of the previous theory is the interest rate theory that can provide loans. The risk-free rate, according to this viewpoint, is controlled by the interaction of two supply and demand factors (loan funds). Likewise, Dhoonooah (2017) mentions that the demand for loaned funds consists of requests for credit from domestic companies, consumers and governments and also from loans on the domestic market by foreigners. Sethia (2010) suggested the provision of loan funds comes from four sources, viz. Domestic savings, accumulation of the demand for money, creation of money by the banking system and loans on the internal market by foreign subjects and institutions. The third approach is the interest rate liquidity preference theory. Modigliani (1944) analyzed, the lending-able funds approach to determining the interest rate focuses the supply and demand of lending funds. An alternative approach to viewing liquidity preferences focuses on liquidity preference rather than money supply and demand. Mutinda (2014) expressed, according to Keynes, the rate of interest is calculated by means of money and interest is purely a monetary phenomenon. As a result, the Keynesian interest theory is also known as the monetary interest theory, because the interest rate is driven by the demand for money; Keynes emphasized people's liquidity preferences. Besides that, the money supply indicates the total amount of money available in a given period of time. This total amount of money is changed by the country's central bank.

Similarly, Chick & Chick (1992) examined the formidable deposit creation theory at this stage, with exogenous loans driving the system, has been proposed significantly. The banking device is operating to the point where spot reserves are inconvenient for over-the-counter transactions. As pointed out many years ago, it is when banks are limited by the reserve that they showcase the properties described with the help of the savings multiplier. Drechsler et al. (2018) suggested the adoption of the new banking system theory based totally on the profitability margin of the mortgage expansion, given the marginal prices of the acquisition of additional reserves. This involved at least occasionally the active search for loan dealers as a substitute rather than substantially satisfying all requests for real mortgages and "financing" the asset aspect with the help of providing higher savings commissions to appeal to deposits. Finally, the last but not least theory is modern theory of interest. Hughes & Mester (2012) emphasize conflicting risk incentives for managers. Increased risk-taking, on the one hand, uses a subsidy to take the risk of explicit and implicit deposit insurance at a lower price, while reduced risk acceptance, on the other hand, protects the bank from costly financial difficulties such as liquidity crises, regulatory intervention, and even confiscation of the bank's valuable statute. For most banks, valuable investment opportunities make profitable trading a strategy.

Among these theories, the theory of loanable funds is appropriate in this study. Interest rate theory on loanable funds included both monetary and real factors of the economy in the context of determining the interest rate. Thus, this theory is seen to be significantly superior to classical theory. As per the loanable funds theory, the rate is influenced by the demand and supply of funds in the economy at the point where the demand and supply must be equal. As a result, it's a basic economics concept adapted to the marketplace for borrowings with the interest rate viewed as the price of these funds (per unit of time).

Conceptual Framework

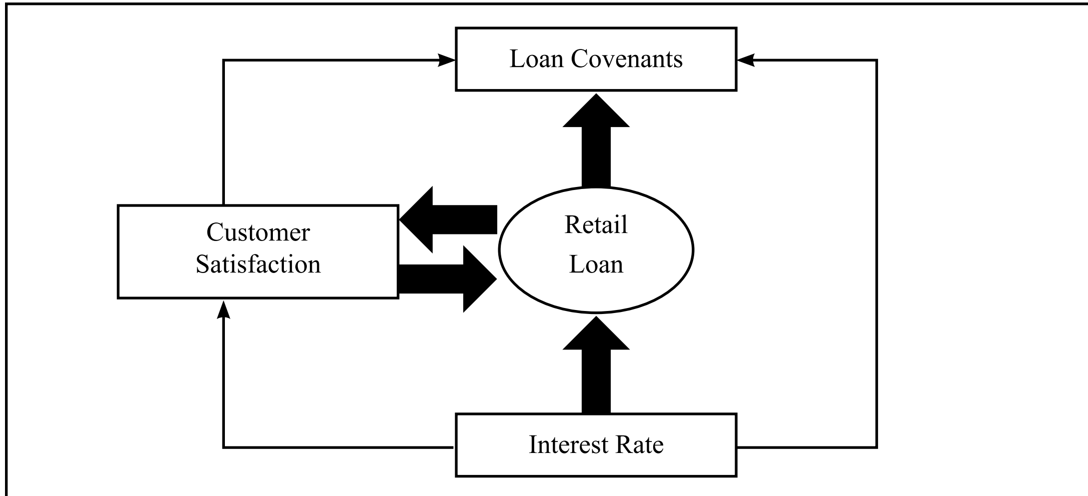
One of the most crucial elements in the country's economic and financial system is the interest rate (Gaire, 1970). Normally, interest is considered to be the payment for use or the capital service (Kreisberg, 1992). An increase in the interest rate has an impact on investment decisions, thus investors

shift the mix of their portfolios from stocks to fixed income assets (Vardaro et al., 2016). The interest rate is the ratio of the borrowed money that is paid in interest per unit of time. To put it another way, consumers must pay for the ability to borrow money. The cost of borrowing money is expressed as an interest rate, expressed in rupees per year per borrowed rupee. Interest rate modifications provided and implemented by commercial banks can be utilized to achieve core national economic goals. Money and capital are complimentary activities in the expanding economy, thus a surge in the real interest rate on money will tend to raise both the volume of real financial savings and investments, and, as a result, the pace of expansion of the economy (Lin et al., 2012). Individual consumers utilize local branches of huge commercial banks in retail banking, which is the typical mass-market bank. Savings and bank accounts, as well as mortgages, consumer lending, payment systems, and other financial services, are accessible." The consumer banking landscape is constantly changing nowadays. Client demographics are shifting, prompting the development of a unique app built on innovative technology, better service, and banking ease. Customer expectations have never been higher as technology has become more widely used and levels of global literacy have grown. The increasing usage of contemporary technologies has increased the reach and accessibility of the program (Corvoisier & Gropp, 2002). Satisfaction, quality, and loyalty, according to Hashmi (2013), are the three proven variables in today's customer-centric competitive arena. The level of service offered has a direct correlation with customer satisfaction. In order to attract new customers and keep existing ones, many banks have turned to identifying the elements that impact consumers' choice to take out a loan from a certain bank. Several characteristics (demographics, service quality, and satisfaction) have been investigated as possible influences on customers' choice to take out a loan (Frangos et al., 2012).

According to Elmendorf (1996), the quality and effectiveness of the service, the bank's image, the bank's convenient location, parking facilities, financial reasons, and influenced opinion are the primary elements that impact client bank selection. The study also suggests that in their bank selection process, respondents' various demographic traits may need to be handled as discrete groups with different priorities. Singh et al (2016) banks are the most significant components of the financial system in today's situation, since they are continually active in offering a variety of financial goods and services to their customers, such as savings accounts, deposits, loans, debit and credit cards, mobile banking, and online banking (Thakuri et al., 2023). A person's choice of a bank for establishing an account or using other banking services can sometimes be influenced by variables such as the location of the branch, the timeliness of the branch, the lower minimum balance sheet requirement, and interest rates. According to Strahan and Weston (1998), the following variables influenced the choice of a customer's bank in a sample of family heads: bank reputation, location, opening hours, interest in savings accounts, and availability of easy banking services. The warmth of the bank workers and the current nature of their structures were less essential aspects. Quality of service, banks' image, bank charges, accessible location, and interest rates on savings and loans are all factors that might influence a customer's decision to choose a bank (Zhou, 2004).

As shown in Figure 1, successful lending policies contribute to bank loan holder satisfaction. Customers expect and look forward to the bank's loan procedure based on their impressions of products and services, communication made banks, and organizational value. When efficient lending policies are implemented, bank loan holders begin to develop loyalty and confidence in the bank. Also, the service provided and the manner in which the bank informs consumers about the numerous services available helps them feel appreciated and happy. Similarly, the value that consumers anticipate from a bank is influenced by its image, expectations, complaint management processes, and how they are addressed, all of which may contribute to customer satisfaction.

Figure 1: Conceptual Framework



Source: Overstegen (2017)

However, interest rate is also one of the major parts of making loan decision from the prospect of loan holder. Stable interest rate helps to measure future loan installments, ratios and so on. Likewise, it will encourage to further making loan decision. Now that loan holders are increasingly aware of banking lending transactions and how banks disclose information with them, they are becoming more informed. This research will aid in gaining a better grasp of loan holders' perspectives on how well banks serve them. After this research is completed, a general understanding of consumer bias and perception will be achieved.

Empirical Framework

The objective of this study is to acquire behavioral and psychological components of customers' perceptions of retail banking products. People view things differently depending on their interests, social influences, cognitive and emotional characteristics, and knowledge, according to Bandura (1999). As a result, people perceive banking retail items differently. The conceptual framework depicted in Figure 1 advises using the model to determine the important elements that influence loan holders.

Awareness (Y) = f (Socio-demographic, customer satisfaction, loan covenants, interest rate)

The socio-demographic variables are captured by undertaking respondents' age, sex, education, family types and occupation they are involved with. Customers' satisfaction characteristics such as staff confidence and trust, searching for the best feasible solution, and effectiveness in handling customer complaints are all assessed in the same way. Loan covenants are captured through timeliness of approval and rapid payout, cheap installments over a lengthy period of time, and the option to manage the amount and frequency of installments according to your capacity. Finally, the interest rate is calculated using competitive loan interest rates, a consistent interest rate throughout the payback period, and no penal interest charges for unforeseen events.

Measuring Awareness Index

The awareness of loan holders, as measured by the awareness index, is the study's dependent variable. This awareness index is derived based on the bank loan holders' socio-demographic variables along with many other variables. Based on the results of the awareness index, the loan holder was classified as very, somewhat, or unconscious. The general form of identifying loan holder awareness on retail banking products is as follows:

$$\text{Awareness} = \begin{cases} 1, \text{ If Scale Score } < 45\% \\ 2, \text{ If } 45\% < \text{ScaleScore} < 75\% \\ 3, \text{ If ScaleScore} > 75\% \text{ above} \end{cases}$$

The dependent variable (Y) is ordered variables. Several questionnaire choice models, including as linear probability, logit, and probit models, can be estimated to assess the ordered outcomes on dependent variables (Devkota et al., 2018; Paudel et al., 2020, Kharel et al., 2022, Devkota et al., 2020). Many researches have estimated the Ordered Logit Model, which is the most popular model among these. The Ordered Logit model, as proposed by Paudel et al., will be used in this investigation (2020). The factors employed in this research are listed in Table 1.

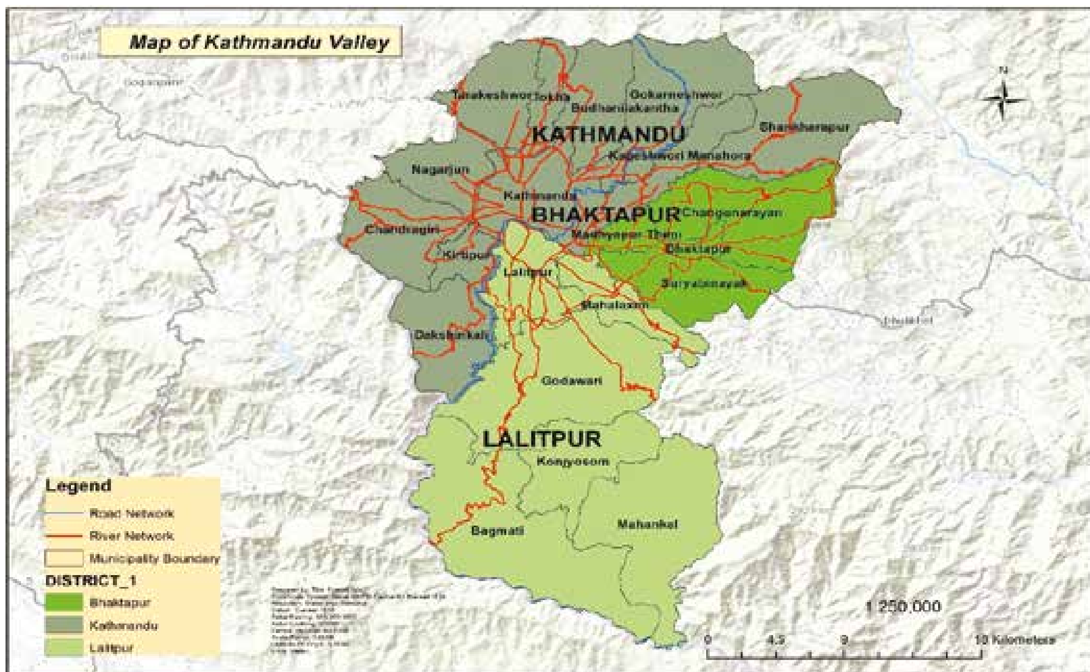
Table 1: Variables and Expected Sign of Variables

Variable	Description	Value	Expected Sign	Mean	Std. Dev.
Socio-demographic					
Age	Respondent's age	In years	±	37.70	9.507
Education (Edu)	Formal education	1 = Above SEE, 0 = otherwise	+	3.319	.939
Gender (sex)	Respondent's sex	Male = 1, Female = 0	+	1.240	.428
Customer satisfaction					
Confident_trust	Staff confident and trust	1 = yes, 0 = otherwise	+	.950	.217
Best_poss_sol	Searching for the best possible solution	1 = yes, 0 = otherwise	+	.838	.369
Manage_cus_comp	Effectiveness in managing customer's complaints	1 = yes, 0 = otherwise	+	.734	.443
Loan covenants					
App_immediate	Speed of approval and immediate payout	1 = yes, 0 = otherwise	+	.896	.306
Loan_processing	Less cost of loan processing	1 = yes, 0 = otherwise	+	.587	.493
Bank_reputation	bank reputation is satisfactory in current Nepalese scenario	1 = yes, 0 = otherwise	+	.950	.217
Low_installment	low installments over a long period of time	1 = yes, 0 = otherwise	+	.919	.273
Freq_of_installment	ability to plan the amount and frequency of installments based on your capability	1 = yes, 0 = otherwise	+	.961	.194
Interest Rate					
Competitive_int	Competitive interest rates on the loan	1 = yes, 0 = otherwise	+	.912	.277
Stable_int	Stable interest rate till the repayment period	1 = yes, 0 = otherwise	+	.598	.491
Unexpected_int_charge	No penal interest charge for something unexpected	1 = yes, 0 = otherwise	+	.963	.188

Study Area

The valley of Kathmandu was chosen as the research region (See Figure 2). Because Kathmandu is the country's capital, banks have their headquarters there. The longitudes of the Kathmandu valley are 85°11'31" and 85°31'38" east, while the latitudes are 27°32'13" and 27°49'10" north, respectively (Mohanty, 1970; Maharjan et al., 2020, Devkota, 2020). It spans 899 square kilometers and is divided into three districts: Kathmandu, Bhaktapur, and Lalitpur (Paudel & Devkota, 2020). The Kathmandu valley is a hub for a variety of significant sectors, including carpets, textiles, finance, tourism, health, educational services, and banking (Bhandari et al., 2021). Due to a lack of infrastructure and services in other parts of Nepal, the Kathmandu valley is becoming a center for many commercial and service operations. In the current environment, Nepal's banking industry is expanding. The banking industry is popular among Kathmandu Valley residents for saving purposes. The Kathmandu valley was chosen for the study because it hosts a large number of commercial activities. In addition, the Kathmandu valley is home to all 28 commercial banks.

Figure 2: Study Area



Study Population and Sample Size Determination

The population for this study comprises banking customers of Kathmandu valley, who work in various industries, as well as certain members of the banking staff, because this study focuses on the elements that impact consumer decision-making. For this type of research, a population census is not required. As a result, a sample of the population was chosen. Convenience and random sampling were used to choose respondents for the study. The majority of bank personnel were chosen using convenience sampling, whereas bank clients were chosen using a random sample (businessmen, workers, retirees, students). Because it would be impossible to research the whole population, data from a variety of sources indicates that a sample of the population must be chosen to participate in the study (Clark, 2011). The following sample size was derived $n = z^2pq/l^2$ (Magar et al., 2023 & Devkota et al., 2022). Where, n_0 = sample size required for study, Standard tabulated value for 5% level of significance (z) = 1.96, p = Prevalence of customer awareness on retail banking loan 50 % = 0.5. So, P = 0.5, q = 1-p,

= 0.5. If allowable error that can be tolerated (e) = 5 % then the sample size will be $(1.96)^2 \times 0.5 \times 0.5/(0.05)^2$ = 384.16. Non-response error 5% (Awale et al., 2023) , i.e., 384.16*5/100 = 19.20. Thus, sample size taken for study was (384.16+19.20) = 403.36 (≈403). However, due to various limitations caused by COVID-19 only 383 sample sizes were covered by this study.

Research Instruments and Data Analysis Techniques

Primary data was collected from surveys. Questionnaire that covers area of study was created. A structured questionnaire was developed and delivered for data gathering, along with interviews with banking customers. Interviews were conducted among the customers who had bank accounts in Nepalese banking institutions. NRB central office was visited for acquiring more knowledge or information about the interest rate policy and lending policy. For the questionnaire survey, Kobo tool software was used which was very effectible for our research. Similarly, to meet the accuracy of survey pre-test has been conducted from 5% population.

Following approaches were used to analyze the data: descriptive analysis, awareness index, and inferential analysis. The entire data was analyzed with STATA software, while data input and tabulation were done with Microsoft Excel. Ordered logistic regression model is performed with the help of STATA.

Data Analysis and Results

Socio-demographic Status of the Respondents

The study included banking loan holder of Kathmandu valley. The questionnaire survey was conducted among 383 respondents. Responses were collected from 75.98% male and 24.02% female. In retail banking, the male-to-female ratio is larger than the female-to-male ratio. This indicates that men take more retail loan than women. The age group 30 to 35 had the highest percentage of responders (24.28 percent). Similarly, a minimum of 0.52 percent of responders were between the ages of 15 and 20. It appears that young people are more interested in retail banking products. Respondents in upper secondary education made up 3.13 percent of the overall sample. Similarly, 13.84 percent of respondents were in intermediate school. Bachelor's level responders accounted for 40.99 percent of the total, whereas 32.11% master's and 9.92% having master's degree respectively. From the total 383 respondents, the ratio of Nuclear family (77.5%) is comparatively higher than joint family (22.45). This shows that there is higher participation of nuclear family over joint family in retail loan access. The bulk of poll participants (44.91 percent) came from a business background, followed by employees (26.89 percent), agricultural (14.36 percent), students (10.44 percent), and others (3.39 percent). That indicates proportion of retail loan holders is highest in business compared to others.

Determinants of Retail Loan Holder Awareness on Interest Rate Fluctuation

This section exposes various perceptions of retail products regarding interest rate. NRB stated about the interest rate policy, prime factors related interest rate and also about fair competition. The Nepal Rastra Bank (NRB) oversees commercial banks, development banks, finance businesses, and microfinance institutions in Nepal, as well as guiding monetary policy. The Nepal Rastra Bank is also in charge of the country's foreign exchange reserves and exchange rates. The bank is a major shareholder in the Nepal Stock Exchange (NRB, 2019). 63.97% respondents are positive towards interest rate determine by the NRB whereas 4.18% of respondents don't belive on that. Similarly, 51.17% of the respondents agreeed to interest rate is prime factor. Likewise, 56.14% of the respondents think fair competition is needed where 13.05% think they don't need. Table 2 shows the landohders awareness related issues.

Table 2: Determinants of Retail Loan Holder Awareness on Interest Rate Fluctuation

Determinants	Yes (%)	No (%)	Maybe (%)
NRB Role			
NRB determine interest rate	63.97	4.18	56.14
Interest rate is prime factor	51.17	8.36	13.05
Fair competition is needed	56.14	40.47	30.81
Investment			
Minimize interest rate for increase in investment	51.17	16.19	32.64
Interest rate effect buying capacity	51.96	16.45	31.59
Retail Loan Product			
Branch follow a consistent policy for levying service charges on your account	71.02	8.09	20.89
Retail banking helps to increase overall performance of the banks	62.92	9.40	27.68
Retail banking is a good deal for both customer and banks	15.14	34.73	50.13

Further Nepalese economy investment is the most important factor for the development of nation. Here we have mentioned two major crucial elements that minimize the interest rate for increase in investment and another is interest rate effect the buying capacity. The results indicate 51.17% of the respondents agreed on minimizing the interest rate for increase in investment whereas 16.19% of the respondents don't and remaining 32.64% of the respondents have confusion about that. Furthermore, 51.96% of the respondents stated interest rate effect the buying capacity of loan holder where 16.45% of the respondents don't and remaining 31.59% of the respondents were in confusion. In the similar context Individuals with a good credit score are eligible for retail loans. Banks and financial organizations want to guarantee that such loans are repaid on time, therefore having a strong repayment history and credit score is crucial when applying for a Retail loan. Interest is due on a monthly or annual basis, depending on the financial institution's terms and conditions. 71.02% of respondents revealed that branch follow a consistent policy for levying service charges on account, followed by retail banking helps to increase overall performance of the banks which are 62.92% respectively. However, the minority of the respondents are retail banking a good deal for both customer and banks having 15.14%. Due to globalization, international banks, as well as a new generation of private and foreign banks, have joined the market, bringing with them a slew of technologically advanced goods (Bist, 2015).

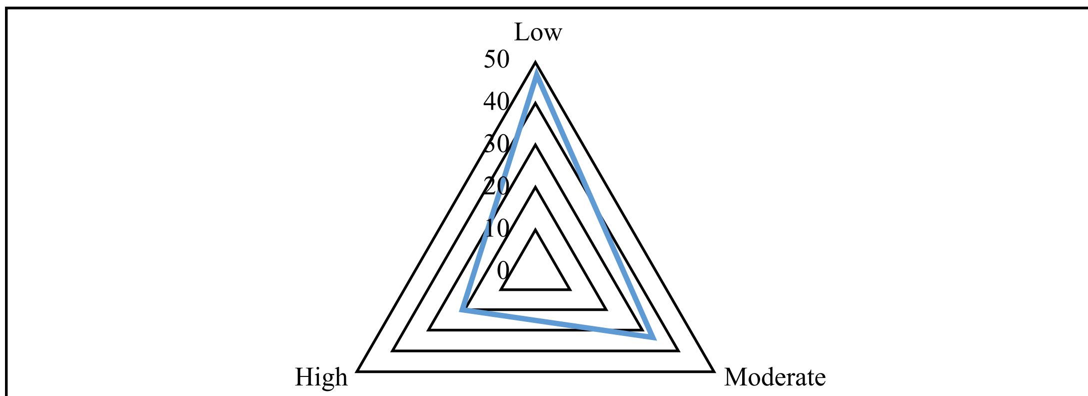
Calculation of Awareness Index

This section presents the banking awareness index on interest rate. It deals with interest rate, customer treatment satisfaction, and also loan covenants. The result shows that 84.33% respondents found there is a competitive interest rate, and 59.79% respondents found there is stable interest rate. Similarly, 69.45% of the respondents found that there is no any panel interest charge. Discussing about customer treatment satisfaction, retail loan respondents were asked about the satisfaction towards staff confidentiality, best possible solution, effectiveness, branch expansion and ATM in proper condition, financial performance of the loan provider, variety of retail product, and clear information. The result shows that 55.09% of staffs found confidentiality and trust towards customers. Likewise, 68.15% of the respondents stated for searching the best possible solution. Around 61.36% of the respondents expressed about any effectiveness in handling customer complaints from banks. Similarly, 77.28%

of loan holders found spread of branch network all over Kathmandu valley. In the similar manner, 83.29% of the respondents found sufficient number and well-functioning ATM all over the valley. Likewise, 63.71% of the respondents found financial performance of the loan provider is awesome. Furthermore, 57.96% of the respondents found there were variety of retail products. Lastly, 62.14% of the respondents found clear information about the retail products. In this regard, customer satisfaction is crucial in establishing how satisfied clients are with products offered by company, facilities, and competencies. Furthermore, surveys and assessments of customer satisfaction can assist a firm find out how to enhance or change its products and services (Hirtle & Stiroh, 2007).

A loan covenant is a contract between a borrower and a lender that specifies the terms and circumstances of a lending policy. Loan covenants have major elements like speed of approval, less cost of loan processing, bank reputation, installments, and frequency of installments. The survey result shows that 56.28% of the respondents viewed that bank provide speed of approval and immediate pay out facility. Similarly, 58.75% found there is less cost of loan processing. Moreover, 59.01% of respondents stated bank reputation is satisfactory in current Nepalese scenario and the rest didn't find such. Similarly, 63.71 percent of respondents reported modest monthly installments over a lengthy period of time. However, 67.36 percent of respondents believe that the bank has the power to arrange the amount and frequency of installments based on the ability of the loan holder. According to Athanassopoulou & Johne (2004), a loan covenant is a clause in a business loan or bond issuance that demands borrower to meet particular criteria, prevents the borrower from conducting certain acts, or restricts certain activities to certain circumstances. Similarly, the level of customer knowledge of retail banking products was assessed on a scale of one to three, with one indicating little awareness, two suggesting moderate awareness, and three indicating high awareness. Although awareness levels were evaluated and studied in relation to several socio-demographic parameters, the majority of respondents who were core service receivers expressed moderate to low awareness (See Figure 3).

Figure 3: Intensity of Overall Awareness Level



Source: Field study

Regression Estimation

Final Ordered regression results are performed for the variables that we set for the analysis. For detail understanding, this study has performed three tests separately for the same variables i.e. coefficient estimation, odds ratio and marginal effect. The final results are presented in table 3. Talking about coefficient in logit model, talking about, if there is increment in the best possible solution of loan holder preferences, the probability of enhancing banking performance gets increased by 1.272 times. Similarly, if there is managing customer complaints by financial institutions, the logit probability of enhancing performance of retail products increases by 1.409 times. Again, increase in approval immediate of retail loan holder, the probability of improving banking performance increases by 1.927

times. Likewise, increase in loan processing, bank reputation, competitive interest rate, and stable interest that led to increase retail banking performance by 3.886, 2.324, 1.773, 1.772 times respectively. Now we can say that increase in the best possible solution of loan holder preferences, the odds of being increment in banking performance increase by a factor of 3.569 times. Similarly, if there is managing customer complaints by financial institutions, the odds of enhancing performance of retail products increases by 4.092 times. Again, increase in approval immediate of retail loan holder, the odds of improving banking performance increases by 6.868 times. Likewise, increase in loan processing, loan processing, bank reputation, competitive interest rate, and stable interest that led to increase retail banking performance by 48.71, 10.22, 5.87, 5.885 times respectively.

In logistic regression and other non-linear models, marginal effects are used to explain the average influence of alterations in explanatory variables on the change in the probability of results. In marginal effects, we have seven highly significant variables which is less than 0.05. Here it is similar to the odd ratio because in marginal effect also dependent variable of retail banking products are significant with best possible solution, management of customer complaints, approval immediate, loan processing, bank reputation, competitive interest rate, and stable interest.

Table 3: Final Regression Result

	(1)	**(2)**	**(3)**
VARIABLES	**Ordered coff**	**Odds ratio**	**Marginal effects**
Awerness_index			
Age	-0.0310*	0.969*	-0.0310*
	(0.0165)	(0.0160)	(0.0165)
Edu	-0.292*	0.747*	-0.292*
	(0.159)	(0.119)	(0.159)
Gender	0.276	1.317	0.276
	(0.327)	(0.431)	(0.327)
Family_typ	-0.681**	0.506**	-0.681**
	(0.323)	(0.163)	(0.323)
Occup	0.0734	1.076	0.0734
	(0.153)	(0.165)	(0.153)
Confident_trust	0.424	1.527	0.424
	(0.510)	(0.778)	(0.510)
Best_poss_sol	1.272***	3.569***	1.272***
	(0.357)	(1.274)	(0.357)
Manage_cus_comp	1.409***	4.092***	1.409***
	(0.325)	(1.330)	(0.325)
App_immediate	1.927***	6.868***	1.927***
	(0.445)	(3.054)	(0.445)
Loan_processing	3.886***	48.71***	3.886***
	(0.382)	(18.59)	(0.382)
Bank_reputation	2.324***	10.22***	2.324***
	(0.597)	(6.097)	(0.597)

VARIABLES	(1) Ordered coff	(2) Odds ratio	(3) Marginal effects
Low_installment	1.530**	4.617**	1.530**
	(0.656)	(3.030)	(0.656)
Freq_of_installment	0.349	1.417	0.349
	(0.820)	(1.162)	(0.820)
Competitive_int	1.773***	5.887***	1.773***
	(0.655)	(3.855)	(0.655)
Stable_int	1.772***	5.885***	1.772***
	(0.314)	(1.849)	(0.314)
Unexpected_int_charge	1.186*	3.275*	1.186*
	(0.719)	(2.356)	(0.719)
Constant cut1	8.463***	4,735***	8.463***
	(1.668)	(7,897)	(1.668)
Constant cut2	12.80***	362,261***	12.80***
	(1.790)	(648,391)	(1.790)
Observations	383	383	383

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Discussion

Customers prefer to borrow from commercial banks, followed by finance firms, development banks, and finally cooperatives when making a loan choice. Customers and banks both put a premium on the spread of a bank's or financial institution's branch network, which is understandable. However, bank and consumer reactions to the sub-variable, sufficient number of bank workers, appear to be completely opposed. The bank has determined that a sufficient number of staff has a significant influence on the client's loan choice, whilst the customer has determined that the identical sub-variable has the least impact on their loan decision. Clients' satisfaction with bank and financial institution services was influenced by several factors, including personnel, secrecy, and faith in their loan customers, according to both customers and banks (Shrestha, 2013).

Likewise, when clients were examining the items accessible and supplied by banking institutions, the most essential aspect they evaluated was information about the financial institutions from whom they planned to take a loan, as well as the loan that they planned to acquire. Surprisingly, the only sub-variable in this aspect that the bank and the client have put differently is the necessity to know bank workers. The customer has placed a high value on this item, whilst the bank has placed a low value on it. According to Timsina (2015), banks and financial institutions provide numerous loan covenants that are ascribed to various factors. The speed of approval and rapid distribution of the loan by the bank were prioritized by both consumers and banks among the different aspects of loan covenants, with the lower cost of loan processing coming in second. Surprisingly, the bank has given a minimal influence on the loan provider's financial performance, whilst the client has supplied a moderate effect (NRB, 2019). Clients gave higher priority to product availability in the analysis of the priority of the independent variables in relation to the loan decision, accompanied by satisfaction with the existing

service offered by banks and financial institutions, which was followed by the level of service provided by their financial partner, i.e. banks and financial institutions, which was followed by the level of service provided by their financial partner, i.e. banks and financial institutions (Maskay et al., 2002). Customers choose banks and financial institutions that offer competitive interest rates that are steady over time and do not impose penalties in the case of an unforeseen incident. The installment variable has little impact on the loan decision-making process at BFIs since BFIs have a well-defined procedure for calculating the loan payment, which clients must agree with banks (NRB, 2019).

Conclusion and Recommendations

This study tried to analyze the existing situation of retail banking in Nepal based on the data provided by the financial statement as well as other concerned information. Interest is the cost of money, which is a very important factor. In financial world, it is the amount remunerated for the use of loan able funds. There are different theories on interest rate. The classical theories of interest emphasizes saving and interest demand are interest rate determining forces. The liquidity preference theory points to demand and supply of cash balance. The modern theory of interest. Profs. Hicus and Hansin have opened that there is only difference in the concept of saving between the classical and the loan able funds. The modern theory often has been made to mix both the real fund and the monetary factors. There is a negative association between bank deposits and interest rates. When the supply of loanable funds (Supply of Deposits) rises, the interest rate falls. In theory, interest rates on deposits should be positively linked, meaning that a higher rate attracts more deposits. However, we have ensured that interest rates are dependent on the quantity of loanable funds. The coefficient of determination expresses the total variance of interest rate on deposit and has been explained by independent variable i.e. amount of deposit collected and remaining is due to the effect of other factors in the economy. T-statistics for testing the correlation is significant in all samples. This means they are significantly correlated and an increase/decrease in the amount of deposit brings a decrement (increment) in interest rate on deposit. The following suggestions are derived from a research conducted on the variables influencing consumers' loan decisions in the Kathmandu valley, and based on an analysis of the data acquired during the study.

Product Development: Customers' primary concern when deciding whether or not to take out a loan from a variety of BFIs is the loan product. As a result, BFIs must first and foremost produce products that are required by clients and are in high demand. Financial items, on the other hand, cannot be as personalised as other real-world products. Nonetheless, instead of relying on a push sales approach, BFIs should focus on a pull sales strategy by producing a loan product that truly meets the needs of the consumers, is in accordance with their repayment capacity, and is creative. Furthermore, BFIs must provide all product information up front, without concealing any information concerning the costs and commissions associated with the loan product.

Pricing on the loan products: The market is incredibly competitive now, and it is growing more so every day. In this situation, BFIs must concentrate on the loan product's price. The NRB's regulatory cap, which requires all banks to keep their interest rate spread below 5%, has also made it difficult for BFIs to remain competitive and retain their client base. On the other hand, the NRB has prohibited BFIs from collecting commission on loan products with a difference of less than 0.25 percent of the loan amount. As a result of the regulatory restrictions and the confined market of the Kathmandu valley, BFIs must be more careful when valuing their loan products, as we have already seen from the study that the importance of the interest rate connection is significant. In addition, the consumer appears to be in favor of the loan selection if the interest rate is reasonable.

Customer and service-oriented business: Although BFIs provide better loan and other product prices to their clients in order to grow and retain their customer base, many BFIs fail to keep their consumers merely due to the quality of service they provide and the satisfaction they perceive from their service.

As previously said, BFs must exercise greater caution when pricing loan products, which is both necessary and mandatory because all BFIs want to serve their clients with the best possible price. In a circumstance when BFIs are currently operating at a maximum spread rate of 5%, the only option to grow and retain customer base is to give excellent service to consumers and raise as well as maintain their satisfaction level, as evidenced by the analysis result generated from our study analysis.

High spread rate: Another factor to take into account is the significant variation in interest rates between borrowing and lending accounts. Higher spreads boost banks' profits, but they also limit deposit collecting and investment in the economy. As a result, financial institutions are advised to keep interest spreads as low as feasible. The loan rates of the same bank in the same sector are discovered to be diverse, indicating that they are quoted on a range. These kinds of inconsistencies might lead to misunderstandings about a company. As a result, banks are advised to quote a single rate rather than a variety of rates.

References

Acharya, V. (2018). Understanding and managing interest rate risk at banks. *Macroeconomics and Finance in Emerging Market Economies*, 11(2), 218–231.

Athanassopoulou, P., & Johne, A. (2004). Effective communication with lead customers in developing new banking products. *International Journal of Bank Marketing*, 22(2), 100–125. https://doi.org/10.1108/02652320410521719

Awale, P., Basyal, D. K., Lawaju, P., Thakur, A., Bhandari, A., & Paudel, U. R. (2023). Investigating Policyholders' Perception Towards Insurance: Evidence From Structural Equation Modeling. *Nepalese Journal of Insurance and Social Security*, 6(1), 71-81.

Bandura, A. (1999). Social cognitive theory : An agentic Albert Bandura. *Asian Journal of Social Psychology,* 21–41.

Berger, A. N., & Udell, G. F. (1995). Universal Banking and the Future of Small Business Lending. In *NYU Working Paper: Vol. FIN-95-009*. https://doi.org/10.2139/ssrn.1298316

Bhandari, U., Yadav, S., Devkota, N., Paudel, U. R., Rajbhandari, S., & Karki, D. (2021). Private and public bank consumers' preference in Kathmandu Valley: Evidence from customers' satisfaction index. *International Research Journal of Science, Technology, Education and Management*, 1(1), 67-78.

Bhattarai, Y. R. (2017a). Determinants of Lending Interest Rates of Nepalese Commercial Banks. *Economic Journal of Development Issues*, 02(6), 39–59.

Bist, R. B. (2015). Research Procedure: An Introduction. *Journal of NELTA Surkhet,* 4, 34–40. https://doi.org/10.3126/jns.v4i0.12858

Chick, V., & Chick, V. (1992). The Evolution of the Banking System and the Theory of Saving, Investment and Interest. *On Money, Method and Keynes*, 193–205.

Clark, P. (2011). *CHAPTER* 5. 130–153.

Corvoisier, S., & Gropp, R. (2002). Bank concentration and retail interest rates. *Journal of Banking & Finance,* 26(11), 2155-2189.

Devkota, N. (2020). Bankers' communication Know-how: An analysis from commercial banks of Kathmandu valley. *Quest Journal of Management and Social Sciences,* 2(1), 80-99.

Devkota, N., Paudel, U. R., & Bhandari, U. (2020). Does westernization influence the business culture of a touristic city?. *Economics and Sociology*, 13(4), 154-172. doi:10.14254/2071-789X.2020/13-4/10

Devkota, N., Phuyal, R. K., & Shrestha, D. L. (2017). Cost and benefit analysis of adoption of climate change adaptation options among rural rice farmers in Nepal Asian Journal of Agriculture and Rural Development. *Asian Journal of Agriculture and Rural Development,* 7(7), 136–138.

Devkota, N., Shreebastab, D. K., Korpysa, J., Bhattarai, K., & Paudel, U. R. (2022). Determinants of successful entrepreneurship in a developing nation: Empirical evaluation using an ordered logit model. *Journal of International Studies,* 15(1), 1-16.

Dhoonooah, B. D. (2017). *Determination of Interest Rate in Mauritius By : dhoonooah bsc Business Economics and. August.*

Diebold, F. X., & Sharpe, S. A. (1990). Post-deregulation bank-deposit-rate pricing: The multivariate dynamics. In *Journal of Business and Economic Statistics* (Vol. 8, Issue 3, pp. 281–291). https://doi.org/10.1080/07350015.1990.10509799

Drechsler, I., Savov, A., & Schnabl, P. (2018). Banking on Deposits: Maturity Transformation Without Interest Rate Risk. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2938236

Elmendorf, D. W. (1996). The Effect of Interest-Rate Changes on Household Saving and Consumption : A Survey. *Finance and Economics Discussion Series,* 1996(27), 1–84.

Frangos, C., Fragkos, K., Sotiropoulos, I., Manolopoulos, G., & Valvi, A. (2012). Factors Affecting Customers' Decision for Taking out Bank Loans: A Case of Greek Customers. *Journal of Marketing Research and Case Studies, July* 2015, 1–16.

Gaire, H. N. (1970). Real Interest Rate and Saving Behavior in Nepal. *Banking Journal*, 2(1), 16–34. https://doi.org/10.3126/bj.v2i1.5703

Hashmi, S. Z. (2013). *Factors Influencing Consumer Choice in Retail Banking.*

Healey, T. J. (2013). *A World with Higher Interest Rates A World with Higher Interest Rates*. 22.

Hirtle, B. J., & Stiroh, K. J. (2007). The return to retail and the performance of US banks. *Journal of Banking and Finance*, 31(4), 1101–1133.

Hughes, J. P., & Mester, L. J. (2012). Efficiency in Banking: Theory, Practice, and Evidence. In *The Oxford Handbook of Banking* (Issue 08).

Hurley, J., Morris, S., & Portelance, G. (2018). Examining the Debt Implications of the Belt and Road Initiative from a Policy Perspective. DC: Center for Global Development. https://www.cgdev.org/publication/exam. *Policy Paper, March,* 39. www.cgdev.orgwww.cgdev.org

Kayode, O. F., Obamuyi, T. M., Owoputi, J. A., & Adeyefa, F. A. (2015). Credit Risk and Bank Performance in Nigeria. *IOSR Journal of Economics and Finance,* 6(March-April, 2015), 21–28. https://doi.org/10.9790/5933-06222128

Kharel, S., KC, A., Devkota, N., & Paudel, U. R. (2022). Entrepreneurs' level of awareness on knowledge management for promoting tourism in Nepal. *Journal of Information & Knowledge Management*, 21(02), 2250023.

Kreisberg, B. A. (1992). *Tax practice tax notes Guaranteed Payments for Capital : Interest or Distributive Share?* 55–62.

Lin, J. R., Chung, H., Hsieh, M. H., & Wu, S. (2012). The determinants of interest margins and their effect on bank diversification: Evidence from Asian banks. *Journal of Financial Stability*, 8(2), 96–106. https://doi.org/10.1016/j.jfs.2011.08.001

Lucas, R. E. (1982). Interest rates and currency prices in a two-country world. *Journal of Monetary Economics*, 10(3), 335–359. https://doi.org/10.1016/0304-3932(82)90032-0

Magar, S., Basyal, D. K., Lawaju, P., Paudel, U. R., & Poudel, D. K. (2023). Determinants of microfinance adoption, challenges encountered, and principal solutions: An empirical analysis using theory of planned behaviour. *Interdisciplinary Journal of Innovation in Nepalese Academia*, 2(2), 113-128.

Maharjan, S., Devkota, N., Paudel, U. R., Bhandari, U., & Adhikari, K. (2020). MBA graduates' perception on job search sources: Evidence from Nepal. *Asian Journal of Economics, Business and Accounting*, 30-40.

Malla, B. K. (2018). Credit Portfolio Management in Nepalese Commercial Banks. *Journal of Nepalese Business Studies*, 10(1), 101–109.

Maskay, N. M., Ph, D., & Subedi, S. R. (2002). Development of the Nepalese Financial System : Need for the Formulation of a Master Plan. *Economic Review*, 21, 31–51. www.nrb.org.np/ecorev/pdffiles/vol21_art2.pdf

McCallum, B. T. (1993). Discretion versus policy rules in practice: two critical points. A comment. *Carnegie-Rochester Confer. Series on Public Policy*, 39(C), 215–220.

Mnang, S. A., D, P. G. N. P., & Oteki, E. B. (2016). The Effects of Interest Rate on Financial Performance of Micro Enterprises : A Case Study of Makutano Township in West Pokot County. *Internationanl Journal of Novel Research in Marketing Management and Economics,* 3(3), 22–29.

Modigliani, F. (1944). Liquidity Preference and the Theory of Interest and Money. *Econometrica*, 12(1), 45. https://doi.org/10.2307/1905567

Mohanty, A. (1970). State of Environment in Kathmandu Valley, Nepal: A Special Review. *Journal of the Institute of Engineering*, 8(1–2), 126–137.

Mutinda.D.M. (2014). *The Effect of Lending Interest Rate on Economic Growth in Kenya. October*, 1–43.

Ngugi, R. W. (2001). An empirical analysis of interest rate spread in Kenya.

NRB. (2019). *Current Macroeconomic and Financial Situation of Nepal Macro-Financial Outlook.* 1–13. https://www.nrb.org.np/ofg/current_macroeconomic/CMEs Annual English 2074-75 Final.pdf

Overstegen, O. (2017). Master Thesis. *Master Thesis,* 4768.

Pal, R. (2018). Theory of Interest Rate Determkination. *Theory of Interest Rate, February.*

Paudel, U. R., & Devkota, N. (2020). Harmonization of socioeconomic policy and institutional set-up for efficient operation on Nepal-India open border small business. *Journal of International Studies,* 13(1), 108–122. https://doi.org/10.14254/2071-8330.2020/13-1/7

Paudel, U. R., Parajuli, S., Devkota, N., & Mahapatra, S. K. (2020). What determines customers' perception of banking communication? An empirical evidence from commercial banks of Nepal. *Global Economy Journal*, 20(04), 1-21.

Poudel, S. R. (2018). Assessment of Credit Risk in Nepali Commercial Banks. *Journal of Applied and Advanced Research,* 3(3), 65.

Rijal, R. (2014). Lending Business of Banks in Nepal: A Legal Perspective. *NJA Law Journal,* 59(1), 55–68.

Rose, P. S. (2000). *Money and Capital Markets: Financial Institutions Instruments in the Global Marketplace*. 94.

Rosenberg, R., Gonzalez, A., & Narain, S. (2009). The new moneylenders: Are the poor being exploited by high microcredit interest rates? *Contemporary Studies in Economic and Financial Analysis,* 92, 145–181.

Sethia, R. (2010). *Interest rate determination and its impact on commercial bank investment decision*. 1–122.

Sheriff, I. M., & Amoako, G. K. (2014). Macroeconomic Determinants of Interest rate Spread in Ghana: Evidence from ARDL Modelling Approach. *Journal of Finance and Bank Management,* 2(2), 115–132.

Shrestha, P. K. (2013). An Empirical Analysis of Money Supply Process in Nepal. *NRB Economic Review,* 25(2), 17–42.

Singh, S. P., & Agarwal, T. (2016). Determinants of Bank Selection : a Study of Retail Consumers in Gwalior. *Jidnyasa*, 08(1), 9–18.

State Bank of Pakistan. (2006). *Efficiency of financial intermediation: an analysis of banking spreads*. 12.

Strahan, P. E., & Weston, J. P. (1998). Small business lending and the changing structure of the banking industry. *Journal of Banking and Finance*, 22(6–8), 821–845. https://doi.org/10.1016/S0378-4266(98)00010-7

Su, C. W., & Chang, H. L. (2010). Asymmetric adjustment in the lending-deposit rate spread: Evidence from eastern european countries. *Romanian Journal of Economic Forecasting*, 13(2), 165–175.

Thakuri, N., Dhakal, A., Danuwar, R. K., Baral, D. K., & Koirala, A. (2023). Factor affecting customer satisfaction of mobile banking services of commercial bank in Kathmandu Valley. *Interdisciplinary Journal of Innovation in Nepalese Academia*, 2(1), 34-52.

Timsina, N. (2015). Determinants of Bank Lending in Nepal. *NRB Economic Review*, 1(1).

Tumwine, S., Sejjaaka, S., Bbaale, E., & Kamukama, N. (2018). Determinants of interest rate in emerging markets. *World Journal of Entrepreneurship, Management and Sustainable Development*, 14(3), 267–290.

Vardaro, M. J., Systems, H. I. T., AG, H. T., Jari, A., Pentti, M., Information, B. G., Procedure, T., Voltage, H., Procedure, T., Chen, P. C., Salcedo, R., Zhu, Q., De Leon, F., Czarkowski, D., Jiang, Z. P., Spitsa, V., Zabar, Z., Uosef, R. E., Schiffbauer, D., … Measurements, C. (2016). *The effects of exchange rate, interest rate and inflation on the performance of mutual fund in Ghana*. 2002(1), 35–40. Https://doi.org/10.1109/ciced.2018.8592188

Woodford, M. (2003). Foundations of a Theory of Monetary Policy. *Princeton University Press*, 3. https://doi.org/10.1017/S1365100505040253

Zhou, L. (2004). A dimension-specific analysis of performance-only measurement of service quality and satisfaction in China's retail banking. *Journal of Services Marketing*, 18(7), 534–546. https://doi.org/10.1108/08876040410561866