



## Impact of credit risk management on performance of Nepalese commercial banks

Manisha Parajuli

MBS-F Scholar of Lumbini Banijya Campus, Nepal

### Abstract

Credit risk management in the banking sector is important not only because of the Global Financial Crisis (GFC) experienced in recent years but also due to its greater impact on bank's financial performance, growth and survival. Credit loans is one of the key sources of income of commercial banks, therefore managing the risk related to credit greatly impacts the bank's profitability.

This study investigates the impact of credit risk management on the profitability of Nepalese commercial banks. Data from 5 commercial banks for the period 2011 to 2021 have been collected and analyzed using correlation and multiple regression analysis. In the model specification, return on asset (ROA) and Earnings per share (EPS) were used as bank profitability indicators while non-performing loan ratio (NPL), capital adequacy ratio (CAR) and credit to deposit ratio (CDR) were used as indicators of credit risk management.

The study reveal that there is significant relationship between NPL and CAR with profitability of commercial banks. Similarly, there does not exist a significant relationship between CDR and profitability of commercial banks. Since it was found by combining all samples data in one that overall impact of NPLR and CAR has negative effect on ROA and EPS. So all the banks should be considered toward reducing the NPL ratio and maintaining CAR.

**Keywords:** non- performing loan, capital adequacy ratio, credit to deposit ratio, return on assets, earning per share

### Introduction

Banks are very important in every economy because they provide special functions or services in the country (Altman, Bharath, & Saunders, 2002). Banks today are the largest financial institutions around the world, with branches and subsidiaries throughout everyone's life. The banking sector is the most essential and crucial sector of any economy. The success of the banking business depends on the efficient and effective management of loans. In today's fast-moving business environment, banks are exposed to a large number of risks such as credit risk, liquidity risk, market risk, operational risk, interest rate exchange risk, etc. Due to such exposure to various risks, efficient risk management is required. The primary function of a commercial bank is credit management, but it is not an easy job. There are a lot of risks associated with credit, which is called "Credit risk". Credit risk is defined as the possibility that a contractual party will fail to meet its obligation in accordance with the agreed terms (Brown & Moles, 2012). The main aim of managing credit risk is to maximize the bank's return adjusted for the risk while keeping an acceptable level of exposure (Ndoka & Islami, 2012)<sup>[39]</sup>. Hence, a sound credit risk management framework is important for the efficient management of credit risks in enhancing profitability and its survival.

The overall purpose of this research is to investigate how credit risk management impacts on the profitability of sample banks.

The general objectives of this study is to assess the role of risk management on financial performance of commercial bank in Nepal. Specifically;

- To measure the relationship between Credit-deposit ratio (CDR), Non-performing loan (NPL), Capital adequacy ratio (CAR), Return on Assets (ROA) and Earning per share (EPS)?

- To examine the impact of Credit-deposit ratio (CDR), Non-performing loan (NPL), Capital adequacy ratio (CAR) on Return on Assets (ROA) and Earning per share (EPS)

### Rationale of the study

The rationale of the study can be expressed by the following points

- It is expected that this study report gives good insight to students about credit risk management.
- This study will be beneficial to the investors by providing reliable information to them.
- This study will help other researcher through revealing issues for further research

### Hypothesis of the Study

This study is oriented toward testing the hypothesis as mentioned below

**H1:** Credit-deposit ratio (CDR) has a significant and positive effect on ROA of commercial banks.

**H2:** Credit-deposit ratio (CDR) has a significant and positive effect on EPS of commercial banks

**H3:** Non-performing loan (NPL) has a significant and negative effect on ROA of commercial banks.

**H4:** Non-performing loan (NPL) has a significant and negative effect on EPS of commercial banks.

**H5:** Capital adequacy ratio (CAR) has significant and positive effect on the ROA of commercial banks.

**H6:** Capital adequacy ratio (CAR) has significant and positive effect on the EPS of commercial banks.

**Limitations of the study**

The proposed study has certain limitation on its part, which are as follows:

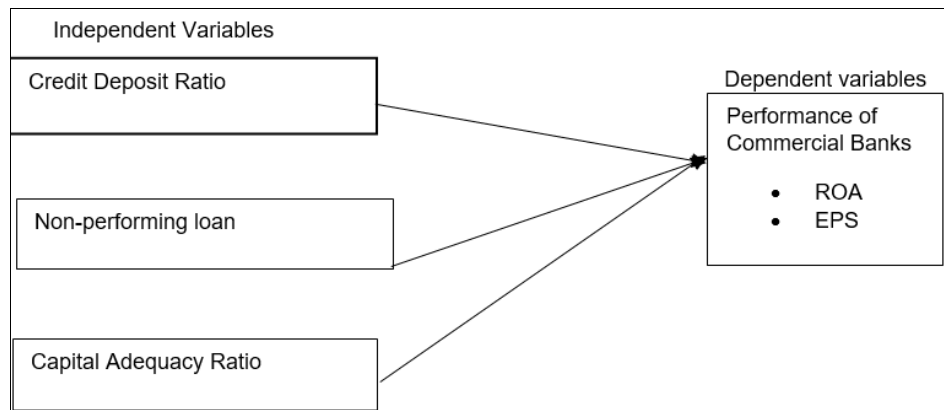
- Among 26 commercial banks this study is based on only five commercial banks named Nepal SBI Bank Ltd, Mega Bank Nepal Ltd, Prime Commercial Bank Ltd, Sunrise Bank Ltd and Everest Bank Ltd.
- This study is based on secondary data taken from annual financial report of the sample banks.

- Only limited financial and statistical tools are used for analysis.
- This study will cover time period of F/Y 2011/2012-2020/2021.

**Review of literature**

**Theoretical framework**

The research framework of the study is in Figure 1



Source: (Bhattarai, 2016)<sup>[9]</sup>, (Zou & Li, 2014), (Pradhan & Shrestha, 2016)<sup>[40]</sup>, (Poudel, 2012)<sup>[42]</sup>

**Fig 1**

**Empirical review**

Abdelrahim (2013)<sup>[11]</sup> in an attempt to investigate the determinants, challenges and drivers of developing the effectiveness of credit risk management of Saudi Banks'. The variables are capital adequacy, assets quality, management soundness and earning were found to have an insignificant impact on the effectiveness of credit risk management of Saudi Arabian banks.

Afriyie and Akotey (2012)<sup>[4]</sup> examined the impact of credit risk management on the profitability of rural and community banks in Ghana using panel regression model for the period 2006 to 2010. The findings of the study show the existence of a significant positive relationship between non-performing loans and bank profitability.

Kaaya & Pastory (2013)<sup>[12]</sup> analyzed the relationship between credit risk and bank performance of commercial banks in Tanzania using regression analysis. The findings of this study show that credit risk indicators used in this study have a negative correlation with bank performance.

Sharma Poudel (2012)<sup>[42]</sup> try to explore various parameters pertinent to credit risk management as it effects banks' financial performance. Such parameters covered in the study were; default rate, cost per loan assets and capital adequacy ratio. The study revealed that all these parameters have an inverse impact on banks' financial performance; however, the default rate is the most predictor of bank financial performance.

Hamza (2017)<sup>[10]</sup> conducted a study on the impact of credit risk management on performance of commercial banks in Pakistan. In this model the LLPR, NPLR and LR variables have negative and CAR, LAR and SIZE variables have positive impact on the dependent variable.

Singh (2015) examined the effect of credit risk management on private and public sector banks in India. For this purpose, researcher has taken ROA is performance indicator. The CAR and NPAs is credit risk management indicator. Researcher has applied two-way regression model.

Adiola and Olausi (2014)<sup>[3]</sup> examined credit risk management in banks has become more important not only because of the financial crisis that the industry is experiencing currently, but also a crucial concept which determine banks' survival, growth and profitability. The findings revealed that credit risk management has a significant impact on the profitability of commercial banks' in Nigeria.

Kithinji (2010) Studied the relationship between Credit Risk Management and the performance of financial institutions in South Sudan using measures of institutional performance and Credit Risk Management. The results of the study indicated that not only profitability but other variables also found to be dependent on level of loans and non performing credit.

Adeusi, Oluwafemi, Akeke, Isroel, Adebisi, and Simeon (2014)<sup>[2]</sup> investigated risk management issues in the banking sector do not only have greater impact on bank performance but also on national economic growth and general business development. The bank's motivation for risk management comes from those risks which can lead to underperformance. This study focuses on the association of risk management practices and bank financial performance in Nigeria. The study concludes a significant relationship between banks performance and risk management.

Alshatti (2017)<sup>[7]</sup> evaluated the influence of credit risk management on profitability of thirteen Jordanian commercial banks. Credit risk management was estimated by capital adequacy ratio (CAR), credit interest/credit facilities ratio, facilities loss/net facilities ratio, facilities loss/gross facilities ratio, leverage ratio, non-performing loans/gross loans ratio while profitability was estimated by ROA and ROE. The empirical findings suggested a positive impact of non-performing loans/gross loans ratio on profitability. Further, the results showed that capital adequacy ratio, credit interest/credit facilities and the leverage ratio had no effect on the profitability (ROE) of the

Jordanian commercial banks. Leverage ratio was found to be negatively related to bank's profitability.

Bhattarai (2016) <sup>[9]</sup> examined the effect of credit risk on the performance of Nepalese commercial banks. The findings of the study showed that the commercial banks under consideration has been practicing poor credit risk management. This was further evidenced by the negative effect of non-performing loan ratio on bank performance and the positive effect of cost per loan assets on bank performance. In contrast to other studies, the author found that capital adequacy ratio and cash reserve have no influence on bank performance. Since there is a significant relationship between credit risk and bank performance.

Ndoka and Islami (2012) <sup>[39]</sup> examined Albanian Financial institutions face difficulties for a multitude of reasons but the major cause of Albanian banking problems is related to the credit risk. The overall findings of this study show that there exists a correlation between credit risk management of commercial banks in Albania and their profitability, meaning that an efficient credit risk management leads to higher profitability. Based on these findings, the authors recommend that commercial banks of Albania focus on managing credit risk especially on the control and monitor of non-performing loans.

Pradhan and Shrestha (2016) <sup>[40]</sup> examined the effect of liquidity on the performance of Nepalese commercial banks. Investment ratio, liquidity ratio, capital ratio and quick ratio are the independent variables used in this study. The dependent variables are return on equity (ROE) and return on assets (ROA). The regression models are estimated to test the significance and effect of bank liquidity on performance of Nepalese commercial banks. Correlation between capital ratio and return on equity found to be positive indicating higher the capital ratio higher would be the return on equity. However, the correlation between return on equity and liquidity ratio is found to be negative indicating higher the liquidity in the bank lower would be the return on equity. Further, the correlation is found to be negative for quick ratio with return on equity.

Siddique, Khan and Khan (2021) <sup>[43]</sup> analyzed the effect of credit risk management and bank-specific factors on South Asian commercial banks' financial performance (FP). The results indicated that NPLs, CER and LR have significantly negatively related to FP (ROA and ROE), while CAR and ALR have significantly positively related to the FP of the Asian commercial banks.

Kurawa and Garba (2014) <sup>[15]</sup> devoted effort to assess the effect of credit risk management on the profitability of Nigerian banks. The findings of this study show that default rate, cost per loan assets and capital adequacy ratio have a significant positive relationship with ROA.

Almekhlafi, Almekhlafi, Kargbo, and Hu (2016) <sup>[6]</sup> analyzed the factors determining the credit risk and its impact on profitability of banks in Yemen. The aim of the study was to see whether credit risk influences the bank performance or not and its impact is same across banks (cross-section invariant) and also to check whether the causality relationship exist between credit risk management and bank's performance. The findings of the research also documented that relationship between credit risk management and banks profitability was cross section invariant in Yemen. Finally, the results showed that there existed a causal relationship among credit risk and profitability in banks.

## Research gap

The aforesaid review represents only a preliminary survey of the relevant issue. On the basis of review, it can be concluded that there are some unsolved research issues on the proposed subject. The purpose of this study is to see what new contribution can be made and receive some ideas, knowledge, and suggestions in relation to the impact of credit risk exposure and management practices on the performance of commercial banks. However, the previous studies cannot be ignored because they provide the foundation for the present study. This study is continuity in research and is ensured by linking the present study with the past research studies. It is clear that there is a scant of study based on recent data. As many researchers emphasized the effects of credit risk in own country context or with other variables. Hence, there exists research gap. The research gap will be minimized by emphasizing the effect of credit risk exposure on the profitability of commercial banks in Nepal with profitability variables, ROA and EPS.

## Research methodology

### Research design

Research design is the overall path or method by which the research study is guided. To attain the specified purpose of this study, descriptive research design and causal comparative research design will be considered as appropriate one. Because this study is intended to describe the phenomenon related to credit risk management and its effect on profitability of commercial banks operating in Nepal.

### Population and sample

As per recent publication of Nepal Rastra Bank, there are 26 commercial banks operating in Nepal. Hence the population of the study is considered as 26 in number. Thus our target is all commercial banks, Nevertheless, in the research, we focus on 5 commercial banks as sample. From the aforesaid population, only 5 banks Nepal SBI Bank Ltd. Mega Bank Nepal Ltd., Prime Commercial Bank Ltd, Sunrise Bank Ltd and Everest Bank Ltd will be considered for the study.

### Nature and sources of data

The data used in this study is from fully secondary sources. These are Published annual and quarterly reports of selected commercial banks, various reports and directives of Nepal Rastra bank.

### Methods of analysis

To achieve our objective various financial as well as statistical tool have been used. For the data of ten years were taken as sample from 2011-2012 to 2020-2021. Firstly, the collected data are presented in proper forms, grouped in various table and charts according to their nature. Then financial and statistical tools have been applied.

Descriptive and inferential statistics tools are used in this study. The descriptive statistics contains mean and standard deviation values of variables used to explain sample firms' characteristics. The correlation analysis is used to determine the relationship between the dependent and independent factors. The regression analysis is used to determine the independent variable's influence over the dependent variable solely and combined with other variables.

**Results and Analysis**

**Descriptive Statistics**

Table 1 presents the descriptive statistics of the variables included in the study of the 5 commercial banks on Nepal from 2011/12 to 2020/2021 (10 years’ period) of 50 observations.

**Table 1:** Descriptive Statistics

Variables	Mean	Std. dev.	C. V.	Minimum	Maximum
NPL (%)	1. 143	1. 023	89. 495	0. 1	4. 942
CAR (%)	13. 579	1. 769	13. 027	11. 017	19. 092
CDR (%)	82. 463	9. 483	11. 500	49. 606	97. 13
ROA (%)	1. 482	0. 417	28. 138	0. 522	2. 238
EPS (Rs)	26. 513	20. 496	77. 305	4. 414	91. 88

Table 1 shows that the average value for bank’s profitability as measured by ROA is 1. 482%, indicating that during the period of 2011-2021, the total assets of commercial banks generated 1. 482% return. Further, the average value for EPS is 26. 513, indicating that during the period of 2011-2021, the commercial banks generated 26. 513 EPS as a return. The non-performing loan ratio has a minimum value of 0. 10 percent and a maximum of 4. 942 percent leading to the mean value of 1. 143percent. The minimum capital adequacy ratio is 11. 017%, which is balanced as the regulatory requirement of Nepal Rastra Bank (NRB) directives is 11%. However, the average CAR is 13. 579%, which is greater than the regulatory requirement of NRB. Similarly, average of CDR is 82. 463 with minimum value of 49. 606 and maximum value of 97. 13%.

**Correlation analysis**

This type of analysis is useful when a researcher wants to establish if there are possible connections between variables.

**Table 2:** Correlation between ROA and independent variables

	ROA	NPL	CAR	CDR
ROA	1. 00			
NPL	-0. 33	1. 00		
CAR	-0. 12	-0. 26	1. 00	
CDR	0. 08	0. 12	0. 41	1. 00

**Interpretation**

The result shows that there is a negative relationship of non-performing loan ratio and capital adequacy ratio with return on assets which indicates that higher the non-performing loan ratio or capital adequacy ratio lower would be the return on assets Similarly, the positive relationship between credit to deposit ratio and return on assets reveals that an increase in the credit to deposit ratio leads to an increase in the return on assets.

**Correlation Between EPS and Independent Variables**

**Table 3:** Correlation between EPS and independent variables

	EPS	NPL	CAR	CDR
EPS	1. 00			
NPL	-0. 32	1. 00		
CAR	-0. 40	-0. 26	1. 00	
CDR	-0. 43	0. 12	0. 41	1. 00

**Interpretation**

The result shows that there is a negative relationship of non-performing loan ratio, capital adequacy ratio and credit to deposit ratio with earning per share which indicates that higher the non-performing loan ratio,

**Multiple regression analysis**

Regression analysis is a set of statistical methods used for the estimation of relationships between a dependent variable and one or more independent variables.

**Table 4:** Regression Model of ROA on NPLR, CAR and CDR

	Coefficients	Standard Error	t Stat	P-value	overall P value	R Square
Intercept	1. 820	0. 545	3. 336	0. 002	0. 011	0. 214
NPL	-0. 185	0. 057	-3. 238	0. 002		
CAR	-0. 083	0. 036	-2. 305	0. 026		
CDR	0. 012	0. 007	1. 857	0. 070		

This Table depicts the multiple- regression Model of ROA on independent variables. The constant value is 1. 820 and the regression coefficients of ROA on NPLR, CAR and CDR are -0. 185, -0. 083 and 0. 012 respectively. Which means 1% increase in NPLR has effect of 0. 185% decrease in ROA and 1% increase in CAR leads to 0. 083% decrease in ROA and similarly 1% increase in CDR will leads to 0. 012% increase in ROA.

R square of 0. 214 indicates that the variation in the value of ROA is affected by only 21. 4% remaining percentage of variation in ROA is dependent upon other than those factors.

The overall significance or p value of 0. 011 is obviously lower than 0. 05. Which shows that there is statistically significant relationship between ROA and the predictor variables.

**Hypothesis testing**

**H<sub>1</sub>:** Non-performing loan (NPL) has a significant relationship between ROA of commercial banks.

**H<sub>2</sub>:** Capital adequacy ratio (CAR) has significant effect on the ROA of commercial banks.

**H<sub>3</sub>:** Credit-deposit ratio (CDR) has a significant effect on ROA of commercial banks.

**Decision 1**

From the above result of regression analysis, we found that there is statistically significance relationship between NPL and ROA because the P value is 0. 002 which is lower than 0. 05. So, we accept alternative hypothesis.

**Decision 2**

From the above result of regression analysis, we found that there is statistically significance relationship between CAR and ROA because the P value is 0. 026 which is lower than 0. 05. So, we accept alternative hypothesis.

**Decision 3**

From the above result of regression analysis, we found that there is no statistically significance relationship between CDR and ROA because the P value is 0. 070 which is higher than 0. 05. So, we reject alternative hypothesis.

**Table 5:** Regression Model of EPS on NPLR, CAR and CDR

	Coefficients	Standard Error	t Stat	P-value	overall P value	R Square
Intercept	139.137	23.654	5.882	0.000	0.000	0.387
NPL	-8.112	2.476	-3.277	0.002		
CAR	-4.814	1.556	-3.093	0.003		
CDR	-0.460	0.282	-1.629	0.110		

Table 4. 14 show the multiple- regression Model of EPS on independent variables. The regression coefficients of EPS on NPLR, CAR and CDR are -8. 112, -4. 814 and -0. 460 respectively. Which means 1% increase in NPLR has effect of 8. 112% decrease in EPS and 1% increase in CAR leads to 4. 814% decrease in EPS and similarly 1% increase in CDR will leads to 0. 460% decrease in EPS.

R square of 0. 387 indicates that the variation in the value of EPS is affected by only 38. 7% remaining percentage of variation in EPS is dependent upon other than those factors. The overall significance or p value of 0. 000 which is obviously lower than 0. 05. Which shows that there is statistically significant relationship between EPS and the predictor variables.

**Hypothesis testing**

**H<sub>1</sub>:** Non-performing loan (NPL) has a significant relationship between EPS of commercial banks.

**H<sub>2</sub>:** Capital adequacy ratio (CAR) has significant effect on the EPS of commercial banks.

**H<sub>3</sub>:** Credit-deposit ratio (CDR) has a significant effect on EPS of commercial banks.

**Decision 1**

From the above result of regression analysis, we found that there is statistically significance relationship between NPL and EPS because the P value is 0. 002 which is lower than 0. 05. So, we accept alternative hypothesis.

**Decision 2**

From the above result of regression analysis, we found that there is statistically significance relationship between CAR and EPS because the P value is 0. 003 which is lower than 0. 05. So, we accept alternative hypothesis.

**Decision 3**

From the above result of regression analysis, we found that there is no statistically significance relationship between CDR and EPS because the P value is 0. 110 which is higher than 0. 05. So, we reject alternative hypothesis.

**Discussion**

The credit risk management effect on the bank profitability. The analyses revealed that NPLR has a statistically significant negative impact on financial performance of Nepalese commercial banks. The finding is similar to that of (Aduda & Obondy, 2011), (Bhattarai, 2016)<sup>[9]</sup>, (Kaaya & Pastory, 2013)<sup>[12]</sup>, Zou and Li (2014), and Ndoka and Islami (2016) but contrary to that of Afriyie and Akotey (2012)<sup>[4]</sup>, and Alshatti (2015). The findings prove that NPL in Nepalese commercial banks decreases loan payment, resulting in less income and less available capital to invest which leads to decrease in bank profitability. Further, the analyses revealed that capital adequacy ratio (CAR) has a

negative and statistically significant impact on bank profitability of Nepalese commercial banks. The finding confirms with expectation and the finding of (Pradhan & Shrestha, 2016)<sup>[40]</sup>, (Poudel, 2012)<sup>[42]</sup> but contrary to (Abdelrahim, 2013)<sup>[11]</sup> and (Afriyie & Akotey, 2012)<sup>[4]</sup>. On the other hand credit to deposit ratio (CDR) could not be regarded as influencing variable on bank performance as they are found to be insignificant at 5 percent level of significance. The analysis revealed that CDR does not have any significant relationship between banks profitability.

**Conclusion and Implications**

The analyses revealed that NPLR has a statistically significant negative impact on financial performance of Nepalese commercial banks. The findings prove that NPL in Nepalese commercial banks decreases loan payment, resulting in less income and less available capital to invest which leads to decrease in bank profitability.

Further, the analyses revealed that capital adequacy ratio (CAR) has a negative and statistically significant impact on bank profitability of Nepalese commercial banks. This study in contrast accepts the hypothesis that there is significantly negative relationship between CAR and banks profitability.

On the other hand, the last independent variables of credit to deposit ratio (CDR) could not be regarded as influencing variable on bank performance as they are found to be insignificant at 5 percent level of significance. The analysis revealed that CDR does not have any significant relationship between banks profitability.

Implications of this study are

- This study help the Nepalese banking sector in ensuring that the best strategies are being used to reduce risk.
- The results of this study can be used by Nepal Rastra Bank to create plans and policies for banks and other financial institutions.
- This study would be beneficial for those people who are interesting to know about these particular banks.
- Finally, it is crucial for all sample banks to be aware of the financial standing and state of risk management.

**Reference**

1. Abdelrahim KE. Effectiveness of credit risk management of Saudi banks in light of global financial crisis: A qualitative study. Asian Transaction on Basic and Applied Science, 2013.
2. Adeusi Oluwafemi S, Akeke Isroel N, Adebisi, Simeon O. Risk management and financial performance of bank in Nigeria, 2014.
3. Adiola I, Olausi AS. The impact of credit risk anagement on the comercial bans performance in Nigeria. International Journal of Management and Sustainability, 2014.
4. Afriyie HO, Akotey JO. Credit risk management and profitaility of selected rural banks in Ghana. Ghana: Catholic University College of Ghana, 2012.
5. Ahmad SY Kushwaha BP. Potential of film–induced tourism and its impact on destination development. Prabandhan Guru,2016:7(1-2):9-14.
6. Almekhlafi E, Almekhlafi K, Kargbo M, Hu X. A study of credit risk and commercial banks performance in Yemen, 2016.
7. Alshatti A. The effect of credit risk management on financial performance of the Jordanian commercial banks, 2017.

8. Amiri AM, Kushwaha BP, Singh RK. Visualization of Global Research Trends and Future Research Directions of Digital Marketing in Small and Medium Enterprises using Bibliometric Analysis, *Journal of Small Business and Enterprise Development*, 2023. ahead-of-print No. ahead-of-print. <https://doi.org/10.1108/JSBED-04-2022-0206>
9. Bhattarai YR. Effect of credit risk on performance of Nepalese commercial banks. *NRB Economic Review*, 2016.
10. Hamza SM. Impact of credit risk management on banks performance: A case study in Pakistan banks. *European Journal of Business and Management*, 2017.
11. Hasan N, Singh A, Agarwal M, Kushwaha BP. Evaluating the Role of Microfinance Institutions in Enhancing the Livelihood of Urban Poor, *Journal of Economic and Administrative Sciences*, Vol. ahead-of-print, 2022. ahead-of-print. <https://doi.org/10.1108/JEAS-09-2021-0175>
12. Kaaya I, Pastory D. Credit risk commercial banks performance in Tanzania: A panel data analysis. *Research Journal of Finance and Accounting*, 2013.
13. Kaur G, Kushwaha BP. Essential Aspects for the Development of Women Entrepreneurial Intention in India. *Journal of Contemporary Issues in Business and Government*,2021:27(1):2381-2388.
14. Kithinji AM. Credit risk management and profitability of commercial banks in Kenya, 2010.
15. Kurawa JM, Garba S. An evaluation of the effect of credit risk management on the profitability of Nigerian banks. *Journal of Modern Accounting and Auditing*, 2014.
16. Kushwaha BP. Green marketing practices to build brand reputation and increase business performance: an investigation from India. *PalArch's Journal of Archaeology of Egypt/Egyptology*,2020:17(6):2078-2088.
17. Kushwaha BP. Impact of message design on display ads involvement and effectiveness: an evidence from India. *PalArch's Journal of Archaeology of Egypt/Egyptology*,2020:17(6):2042-2052.
18. Kushwaha BP. Implementing sustainable marketing through integration of employees, customers and technology. *Pal Arch's Journal of Archaeology of Egypt/Egyptology*,2020:17(6):2089-2099.
19. Kushwaha BP. Investigating privacy paradox: data privacy behavioural intention and disclosure behaviour. *PalArch's Journal of Archaeology of Egypt/Egyptology*,2020:17(6):2066-2077.
20. Kushwaha BP. Search engine marketing a new way of marketing in digital age. *PalArch's Journal of Archaeology of Egypt/Egyptology*,2020:17(6):2053-2065.
21. Kushwaha BP. Paradigm shift in traditional lifestyle to digital lifestyle in Gen Z: a conception of consumer behaviour in the virtual business world. *International Journal of Web Based Communities*,2021:17(4):305-320.
22. Kushwaha BP, Tyagi V, Sharma PB, Singh RK. Mediating role of growth needs and job satisfaction on talent sustainability in BPOs and call centres: An evidence from India. *Journal of Public Affairs*,2022:22(1):e2400.
23. Kushwaha BP, Maru FY. Management students' attitude towards entrepreneur and entrepreneurship, *International Journal of Research in Management & Technology*,2015:5(4):325-329.
24. Kushwaha BP, Rao NS. Globalization and rural consumers' buying behaviour. *Synergy Journal of Management*,2014:16(1&2):80-90. ISSN: 0973-922X.
25. Kushwaha BP. An empirical study on youth perceptions and preferences on smartphones. *International Journal of Research in IT & Management*,2015:5(10):82-90.
26. Kushwaha BP. Consumer behaviour in telecom industry: a study on s. r. t. value added services. *International Journal of Multidisciplinary Empirical Research*,2015:2(1):13-23.
27. Kushwaha BP. The impact of influencing factors on purchase decision of consumer durable product. *International Journal in Management and Social Science*,2015:3(9):375-386.
28. Kushwaha BP. Sustainable offering practices through stakeholder's engagement. *Journal of Innovation for Inclusive Development*,2018:3(1):3-9. ISSN:2456-4478.
29. Kushwaha BP. Personalised Digital Marketing Perspectives and Practices in Tourism Industry, *PalArch's Journal of Archaeology of Egypt/Egyptology*,2020:17(6):2029-2041.
30. Kushwaha BP, Singh VN. Incentives and obstacles to take entrepreneurship as a new career opportunity: a case of management students. *Apeejay-Journal of Management Sciences and Technology*, 2018:6(1):36-44.
31. Kushwaha BP, Kaur G, Singh N, Sharma A. Integrating Employees, Customers and Technology to Build an Effective Sustainable Marketing Strategy, *International Journal of Sustainable Society*,2022:14(4):310-322.
32. Kushwaha BP, Rao NS, Ahmad SY. The factors influencing consumer buying decision of electronic products. *Management Dynamics*,2015:15(1):5-15.
33. Kushwaha BP, Shiva A, Tyagi V. How Investors' Financial Well-Being Influences Enterprises and Individual's Psychological Fitness? Moderating Role of Experience under Uncertainty, *Sustainability*,2023:15(2):1699; <https://doi.org/10.3390/su15021699>
34. Kushwaha BP, Singh RK, Tyagi V. Investigating Privacy Paradox: Consumer Data Privacy Behavioural Intention and Disclosure Behaviour, *Academy of Marketing Studies Journal*,2021:25(1):1-10.
35. Kushwaha BP, Singh RK, Varghese N, Singh VN. Integrating social media and digital media as new elements of integrated marketing communication for creating brand equity. *Journal of Content, Community and Communication*,2020:11(6):52-64. DOI: 10.31620/JCCC.06.20/05
36. Kushwaha BP, Tyagi V, Shiva A. Investigating the role of reinforcement and environmental factors in balancing the state of apprehension: evidence from India. *World Review of Entrepreneurship, Management and Sustainable Development*,2021:17(2/3):142-160.
37. Kushwaha BP, Tyagi V, Singh RK. Impact of Message Design on Display Ads Involvement and Effectiveness: An Evidence from India, *Int. J. of Management Practice*,2021:15(4):532-547.
38. Kushwaha Dr. BP, Tiwari Dr. DN. Demonetization and digital initiative for inclusive social and financial growth. *Kaav International Journal of Economics, Commerce & Business Management*,2018:5(1):34-38.

39. Ndoka S, Islami M. The impact of credit risk management in the profitability of Albanian commercial banks during the period. *European Journal of Sustainable Development*, 2012, 2005-2015.
40. Pradhan RS, Shrestha D. Impact of liquidity on banks profitability in Nepalese commmercia banks, 2016.
41. Rubel, Kushwaha. Increasing the Efficiency and Effectiveness of Inventory Management by Optimizing Supply Chain through Enterprise Resource Planning Technology, *EFFLATOUNIA- Multidisciplinary Journal*,2021:5(2):1739-1756.
42. Sharma Poudel RP. The impact of credit risk management on financial performance of commercial baks in Nepal. *International Journal of Arts and Commerce*, 2012.
43. Siddique A, Khan AM, Khan Z. The effect of credit risk management and bank specific factors on the financial performance of the south asian commercial banks. *Asian Journal of Accounting Banks*, 2021.
44. Singh A. Effect of credit risk management on private and public sector banks in India. *International Journal of Academic Research in Business and Social Science*, 2015.
45. Singh RK, Kushwaha BP. The Influence of Digital Media Marketing and Celebrity Endorsement on Consumer Purchase Intention, *Journal of Content, Community & Communication*,2021:14(7):145-158. DOI: 10.31620/JCCC.12.21/12.
46. Singh RK, Kushwaha BP, Tyagi V. Essential Aspects for the Development of Women Entrepreneurial Intention in India. *Journal of Contemporary Issues in Business and Government*,2021:27(1):2326-2339.