GREEN BANKING PRACTICES AND PERCEIVED FINANCIAL PERFORMANCE OF NEPALESE COMMERCIAL BANKS

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CERTIFICATION OF AUTHORSHIP

I hereby corroborate that I have researched and submitted the final draft of dissertation entitled **"GREEN BANKING PRACTICES AND PERCEIVED FINANCIAL PERFORMANCE OF NEPALESE COMMERCIAL BANKS"**
The work of this dissertation has not submitted previously of the purpose of conferral of any degree nor it's has been proposed and presented as part of requirement for any other academic purpose.

This assistance and cooperation that I have received during this research work acknowledged. In addition, I declare that all information sources and literature used are cited in the reference section of this dissertation

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February, 2024

REPORT OF RESEARCH COMMITTEE

Mr. Dipendra Lamsal has defended research proposal entitled **GREEN BANKING PRACTICES AND PERCEIVED FINANCIAL PERFORMANCE OF NEPALESE COMMERCIAL BANK"** successfully**.** The research committee has registered the dissertation for future progress. It is recommended to carry out the work as per suggestions and guidance of supervisor Kapil Khanal and submit the dissertation for evaluation and viva voce examination.

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APPROVAL SHEET

We, the undersigned, have examined the dissertation entitled **GREEN BANKING PRACTICES AND PERCEIVED FINANCIAL PERFORMANCE OF NEPALESE COMMERCIAL BANKS**

Presented by Dipendra Lamsal for the degree of Master of Business Studies (MBS) and conducted the viva voce examination of the candidate. We hereby certify that the dissertation is acceptable for the award of degree.

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LIST OF ABBREVIATION

ATM	Automated Teller Machine
B/FI	Banking and Financial Institutions
CFP	Corporate Financial Performance
CSP	Corporate Social Performance
CSR	Corporate Social Responsibility
E&S	Environmental and Social
E-banking	Electronic Banking
EC	Economy
ES	Effectiveness
ESRM	Environment and Social Risk Management
EY	Efficiency
GBS	Green Business Strategy
GHR	Green Human Resources
GI	Green Investment
GPS	Green Products and Service
IDRBT	Institute of Development and Research in Banking Technology
IFC	International Finance Corporation
IT	Information Technology
KYC	Know Your Customer
NF	Non-Financial
NRB	Nepal Rastra Bank

PFP	Perceived Financial Performance
RM	Risk Management
ROA	Return on Assets
ROE	Return on Equity
S.D	Standard Deviation
SME	Small and Medium Sized Enterprises
SPSS	Statistical Package for Social Science

ABSTRACT

Climate change is a very complex topic in today's society. People are increasingly aware of global warming today and its obvious effects on human life. The government, direct polluters, as well as other stakeholders like financial institutions, are all concerned about it. This includes banks, which have a significant impact on how society develops. Even while banks' activities have no direct environmental impact, their external effects on the consumers are very important to them. Banks must support the products, processes, and technology that conform to it to significantly minimize their carbon impact. Therefore, banks are incorporating green practices into their operations, investments, and financing plans.

The concept of Green Banking or Ethical Banking taken by banks aims to protect the environment by promoting environmental-friendly practices and reducing the carbon footprint from banking activities. Introduction of Green Products and Services, such as Internet Banking, Mobile Banking, Banking through ATMs, Green Deposits, Green Mortgages and Loans, Green Credit Cards, and Green Reward Checking Accounts, are examples of environmentally friendly activities. By implementing certain strategies, such as paperless banking, energy awareness, mass transit use, and solar and wind energy use, banks can lessen their carbon footprints.

This study investigates the presence of green banking practices and the impact of green banking practices on the perceived financial performance of Nepalese commercial banks. The study has employed a descriptive research design to estimate the relationship between dependent variables (Efficiency, Effectiveness, and Economy) with independent variables (Green Investment, Risk Management, Green Human Resources, Green Products and Services, and Green Business Strategy).

The study is based on primary sources of data. The primary data are used to extract information about green banking practices and the effect of green banking variables on the perceived financial performance of Nepalese commercial banks. Altogether 13 commercial banks and 2 development banks were selected for the study and a total of 400 responses were collected from the prepared structured questionnaire. The study shows that Green Investment, Green Human Resources, Green Products and Services, and Green Business Strategy have a significant impact on perceived financial indicators. Likewise, Green Investment, Green Human Resources, Green Products and Services, and Green Business Strategy have a positive relation over the perceived

financial indicators whereas Risk Management has a negative relation over the perceived financial indicators.

Similarly, the results of the study suggest that management should realize the importance of green banking activities for getting a better financial performance. Therefore, the study concludes that green banking practices in the form of Green Investment, Risk Management, Green Human Resources, Green Products and Services, and Green Business Strategy willtend to increase the firm performance.

CHAPTER-I

INTRODUCTION

1.1 Background of the Study

For countries to develop economically, banks are extremely important. A robust banking industry is essential for the development of the economy, the production of wealth, the eradication of poverty, entrepreneurship, and the general prosperity of the nation. One of the main sources of financing for a variety of enterprises and industries is the banking sector. If banks don't take strong verification steps regarding the negative environmental consequences of certain industries and businesses before financing, this could indirectly result in environmental contamination, which puts a lot of responsibility and accountability on the banks. The main duties of banks must be to promote environmentally responsible loans and investments. A bank will undoubtedly contribute to the damage to the environment if it supports enterprises and industries that contribute to environmental pollution. In contrast, banks should take the initiative to compel businesses to make mandated investments in environmental management and adopt the right technology and management systems. These challenges were long thought to have little influence on the financial sector. This perception has altered in recent decades, and banks now acknowledge that the industry is more influenced by and affected by environmental challenges. By exclusively providing loans to groups that care about the environment, banks can uphold their commitment to ethics. In this way, banks can contribute to improving the overall environment, the quality and conservation of life, the level of efficiency in using materials and energy, quality of services and products even though environmental protection is not a primary goal of the banking industry.

In addition to this, banks are becoming more actively involved in environmental management and preservation projects to lower carbon emissions by using green banking practices. Technology advancements, operational enhancements, and a shift in customer behavior are all part of green banking. Although it is well recognized that banking activities do not directly affect the environment, their customers' actions have a significant external influence. Banks should encourage environmentally friendly goods, procedures, and technologies that significantly minimize the environment's carbon imprint. Hart & Ahuja (1996) stated that environmental performance and financial performance are positively correlated. Initially, banks primarily evaluated

their financial success; however, it is now necessary for them to also evaluate their social and environmental performance. Thus, green banking is about making society livable without doing great harm as well as it is a corporate social responsibility activity of a bank.

Green banking implies encouraging environmentally responsible behavior and lowering the carbon footprint of banking operations (Schultz. C, 2010). This can take many different forms, such as utilizing internet banking instead of branch banking, paying bills online instead of by mail, getting a green mortgage, opening money market accounts, green credit cards, and CDs at online banks instead of large multi-branch banks. According to Aarif & Faizanuddin (2021), Green Bank is like a normal bank, which considers all the social and environmental/ecological factors intending to protect the environment and conserve natural resources. It is also known as an ethical bank or sustainable bank.

The protection and preservation of the environment is the ultimate goal of green banking. There are two possible scenarios. They are (1) behavioral and management innovations in banking practices, and (2) technological innovations in banking. The negative environmental effects of banks can be mitigated by behavioral and management changes in banking processes. As an illustration, consider the bank employees' energy-saving practices at their branches, their efforts to reduce waste, their environmental initiatives, their lending to environmentally friendly projects, etc. These types of behavioral and administrative advancements in banking procedures might lessen the negative environmental effects and carbon footprint of banks. Similarly, Banks may be able to improve their positive environmental impacts or lessen their negative ones with the help of technological innovation. For instance, using an online bill payment system rather than a manual payment system, or using online banking instead of a traditional banking system. These technical advancements in banking will lessen the negative environmental effects and carbon footprint of banks.

Recently, the International Finance Corporation (IFC) partnered with Nepal Rastra Bank (NRB) to help the Bank propose improved environmental and social risk management practices for B/FIs to strengthen portfolio performance, generate new business opportunities and boost competitiveness in the region (NRB, 2018). 21 Commercial Banks, 17 Development Banks, 17 Finance Companies, and 63 Micro Finance Financial Institutions make up the banking sector. There are 21 commercial banks in total, 18 of which are held by the private sector and 3 by the government.

However, only a small number of domestic banks in Nepal have publicly introduced the notion of green banking. These banks are the first in Nepal to adopt the green banking idea. The concept of "green banking" has only lately been introduced and is now being adopted by other commercial banks in Nepal, including government-owned ones. Because everyone in the world has a responsibility to protect the environment. Therefore, every bank has a fundamental obligation and responsibility to practice the green banking concept to contribute to environmental conservation and management, regardless of the market power and competitive position of the banks. Therefore, banks do their business in a socially responsible manner (Biswas, 2011). The market share and competitive standing of Nepal's commercial banks may ultimately depend on the implementation of the green banking idea.

Since green banking is quickly becoming popular in developing nations, they urgently need to implement green banking strategies that will ultimately help save the environment and its resources and will also benefit their business or investment in several ways. Therefore, in this context, it is essential to research the green banking initiatives made by Nepalese banks to advance green banking and preserve environmental sustainability. Nepalese banks must understand their social and environmental responsibilities if they want to compete in international markets. However, many Nepalese banks are now attempting to "Go Green" by providing a range of eco-friendly products and services to their clients and making changes to their regular business processes to address environmental issues. However, Nepalese researchers haven't delved into this field of study.

1.2 Problem Statement

Green banks restrict their business transactions to those business entities that do not qualify screening process done by green banks. Green banks require talented, experienced staff toprovide proper services to customers. Experienced loan officers are needed with additional experience in dealing with green businesses and customers. If banks are involved in those projects which are damaging the environment they are prone to a decline in the B/FI's reputation, costly litigation, or loss of revenue. The type, quantity, and severity of E&S issues that present a risk to a B/FI for any given transaction depend on a variety of factors, including geographic context, industry sector, the scale of the activity, and the type of transaction (e.g., SME finance, Term

Finance, project finance, commercial leasing). There are also a few cases where the environmental management system has resulted in cost savings and an increase in bond value. Credit risks arise due to lending to those customers whose businesses are affected by the cost of pollution, changes in environmental regulations, and new requirements on emissions levels. It is higher due to the probability of customer default as a result of uncalculated expenses for capital investment in production facilities, loss of market share, and third-party claims. It's a new concept and customers will take time to adopt this. Green banking requires a technology that will highly costly. It requires renewable and recycling techniques which is costly. Data protection is another challenge for the adoption of green banking. Bank employees need training for all these practices. A green banking survey is a very effective tool to identify the financial performance of the commercial in Nepal. In the context of Nepal, the banking and financial institution are running behind schedules compared to global trends in terms of green initiatives. Besides a few banks, these banks are unaware or pretend to be unaware of the green banking practices and sustainability of the banks. Thus, the statements of the problem are:

- What are the situation of green banking practices in Nepalese commercial banks?
- What is the relationship between green banking and the perceived financial performance of Nepalese commercial banks?

1.3 Objectives of the study
The specific objectives of the study are given below:
- To assess green banking practices in Nepalese Commercial Bank
- To examine the connection between green banking practices and how Nepalese commercial banks are perceived financially.
- To analyze the impact of green banking practices on the perceived financial performance of Nepalese commercial banks'

1.4 Rationale of the Study
This study seeks to help stakeholders in the banking industry to make appropriate decisions toward the adoption of different green banking activities. They will understand the benefits of adopting green banking in their financial institutions and on

their financial performance as it is one of the key indicators to get a competitive advantage in the banking industry

The study will enable managers of commercial banks to understand the impact of green banking on financial performance and also how it influences levels of competition amongst commercial banks. Similarly, the study will help to understand what actions the banks should take to benefit from the opportunities and how to overcome the challenges relating to green banking. The study also describes green investment, environmental risk management, green human resource, green products and services, and green business strategy.

In the context of Nepal, very few studies have been conducted in this dimension of the commercial banking industry, which leads to insufficient evidence to predict whether there is a positive or negative association with banking financial performance. So, this study will also be a source of evidence for findings in the context of Nepal and can help other researchers as a reference who want to study further in this or related.

1.5 Limitation of the Study

Despite the sincere effort, problems associated with data can influence the outcome of the study. There exist various limitations of the study and some limitations need consideration to generate accurate results. The major limitations of the study are listed below:

- Only limited statistical and financial tools have been used in the study. Not using more scientific and sophisticated tools may limit the validity of the study findings.
- This study is based on primary data. Therefore, the reliability of the conclusions of the study depends on the accuracy of the information provided by the respondents.
- The data has been granted by using a questionnaire. A series of the interview should have been carried out to acquire additional information and it indeed can be affected by the outcomes of this study.

CHAPTER-II
LITERATURE REVIEW

An overview of earlier studies on a subject is provided in the literature review. The literature review examines scholarly books, papers, and other sources relevant to a specific field of study or area of interest. The researcher describes, summarizes, and critically evaluates each source in the review, outlining its benefits and drawbacks. The evaluation of the literature may also point out any inconsistencies or gaps in the literature as well as areas that require additional study. The literature review gives a historical context for your research, outlines relevant issues, theories, and research in the field, and demonstrates how your study will add to or fill a knowledge gap.

2.1 Theoretical Review

2.1.1 Stakeholder Theory

Stakeholder theory is a conceptual framework that offers a perspective on how organizations should consider and manage relationships with various groups or individuals who have a vested interest or "stake" in the organization's activities and outcomes. In the context of green banking practices and financial performance, stakeholder theory becomes a valuable analytical tool.

The primary premise of stakeholder theory is that organizations do not exist in isolation but operate within a network of relationships with different stakeholders. These stakeholders can include customers, employees, suppliers, regulators, and a broader community. The theory suggests that organizations should not only focus on maximizing shareholder value but should also take into account the interests and expectations of other stakeholders.

In the context of green banking practices, stakeholders play a crucial role. The paper acknowledges that environmentally conscious customers, regulators, and the community are key stakeholders in the banking sector. These stakeholders have specific expectations and concerns related to environmental sustainability and responsible business practices. By adopting a stakeholder perspective, the paper emphasizes the importance of addressing the needs and expectations of these stakeholders in the pursuit of long-term financial success.

The link between green banking practices and financial performance is explored

through the lens of stakeholder theory. The argument is that by satisfying the needs of environmentally conscious customers, meeting regulatory requirements related to environmental standards, and contributing positively to the community, a bank can enhance its overall reputation and relationships with these stakeholders. This, in turn, can lead to improved customer loyalty, regulatory compliance, and community support, all of which can positively impact the financial performance of the bank over the long term.

2.1.2 Resource-Based View (RBV)

The Resource-Based View (RBV) is a management theory that focuses on the internal resources and capabilities of a firm as the primary sources of sustainable competitive advantage. It suggests that in order to achieve a competitive edge and superior performance, a firm should possess resources that are valuable, rare, difficult to imitate, and non-substitutable. In the context of green banking practices, the RBV becomes a useful lens through which one can analyze how a bank's environmental sustainability initiatives can contribute to its competitive advantage and financial success.

The RBV approach suggests that for a firm, including a bank, to gain a competitive advantage, it needs to leverage resources that are unique and valuable. In the case of green banking, these resources could include environmentally friendly technologies, a strong commitment to sustainability practices, a green corporate culture, and expertise in sustainable finance. By possessing these resources, a bank may be better positioned to meet the increasing demand for environmentally responsible financial services.

Moreover, RBV emphasizes the importance of rarity. If a bank possesses resources related to green banking that are rare in the industry, it gains a competitive advantage because competitors find it challenging to replicate or acquire similar resources. For example, if a bank has exclusive access to cutting-edge sustainable banking technology or has established a unique partnership with environmental organizations, these could be considered rare resources that contribute to its competitive position.

The difficulty of imitating is another key aspect of RBV. If a bank's green banking practices are challenging for competitors to replicate, it creates a sustainable competitive advantage. This could be due to proprietary knowledge, patents, or specific organizational processes that make it difficult for others to duplicate the same level of environmental sustainability.

Finally, the non-substitutability of resources is crucial. If a bank's green banking resources cannot be easily replaced by alternatives, it strengthens the firm's competitive advantage. For instance, a bank with a well-established reputation for environmental responsibility may find it challenging to be substituted by a competitor without a similar track record.

2.1.3 Triple Bottom Line (TBL)

The Triple Bottom Line (TBL) framework offers a comprehensive evaluation of an organization's performance across three dimensions: economic, social, and environmental. In the context of green banking practices, this framework serves as a valuable tool for assessing the broader impact of a bank's activities beyond traditional financial metrics. The economic dimension focuses on how Green Banking practices contribute to the financial success of the bank. This involves evaluating the profitability of sustainable financial products, cost-effectiveness of environmentally friendly operational practices, and the overall economic sustainability of the bank's business model.

Simultaneously, the social dimension of TBL assesses the impact of green banking practices on various stakeholders, including customers, employees, and communities. This involves examining the bank's efforts to address social issues, promote financial inclusion, and contribute positively to community well-being. Green banking initiatives aligned with this dimension may encompass community outreach programs or partnerships aimed at enhancing financial literacy and inclusion.

In the environmental dimension, TBL evaluates the ecological impact of a bank's operations and financial products. This includes assessing the bank's efforts to reduce its carbon footprint, support renewable energy projects, and promote environmentally responsible lending practices. Green banking initiatives aligned with this dimension contribute to the sustainability of natural resources and mitigate adverse environmental effects.

What makes the TBL framework particularly relevant to green banking is its recognition that economic, social, and environmental considerations are interconnected. The framework suggests that there can be synergies between ecological responsibility and financial success. For instance, by adopting environmentally sustainable practices, a bank may mitigate risks associated with environmental factors, enhance its brand and reputation, and attract customers who

prioritize sustainable banking options. Furthermore, green banking may drive innovation and operational efficiency, leading to cost savings and a competitive edge in the market.

In essence, the TBL framework applied to green banking practices emphasizes a holistic approach to organizational success. It encourages banks to consider the interconnectedness of economic, social, and environmental dimensions, acknowledging that sustainable practices can contribute positively to all three. This integrated perspective reflects a broader understanding of performance that extends beyond financial indicators, aligning with the growing awareness of the importance of environmental and social responsibility in the financial sector.

2.2 Empirical Review

Chen (2022) examined the effect of green banking practices on banks' environmental performance and green financing using primary data collected from 322 banking employees from March to April 2019. Data were analyzed using structural equation modeling. The author has employed green financing and environmental performance as dependent variables whereas green human resources, daily operations, green business strategy, green investment, and customer related as independent variables. The author found that green human resources, daily operation, green business strategy, and green investment have significant positive effects on green financing, contrary to customer relations which were not statistically significant. Additionally, banks' green investments exhibited a strong and positive influence on banks' environmental performance.

Zhang (2022) investigated the impact of green banking activities on bank performance using primary data collected from 352 banking respondents in 2019. Data were analyzed using structural equation modeling with exploratory factor analysis and confirmatory factor analysis. The author has employed green financing and environmental performance as dependent variables whereas green banking activities (Green Investment, Green Business Strategy, and Carbon Footprint) as independent variables. The author found that green banking activities exhibited a significantly positive effect on banks 'environmental performance and sources of green financing and that the sources of green financing significantly influence banks' environmental performances similarly the study also found that green financing mediated the

association between green banking activities and banks'environmental performance.

Hossain et al. (2021) assessed the impact of green banking on the financial performance ofcommercial banks in Bangladesh. The study used secondary data from 30 commercial banks in Bangladesh from 2014 to 2018 and employed panel regression analysis to analyze the data. The variables analyzed in their study included green financing (measured by the number of green loans and green bonds issued by banks) as independent variables,profitability (measured by return on assets, return on equity, and net interest margin), and asset quality (measured by non-performing loans) as dependent variables. The results showed that green financing had a positive and significant impact on profitability and asset quality, indicating that banks that implemented green banking practices had better financial performance than those that did not. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Bangladesh and banks should continue to adopt environmentally friendly practices.

Rshman (2021) explored the adaptation of green banking practices and environmental performance by commercial banks in Pakistan using primary data collected from 200 banking employees. Data were analyzed using structural equation modeling. The author has employed green financing and environmental performance as dependent variables whereas green business strategy, green business operation, and green investment as independent variables. The author found that green business strategy, green business operation, and green investment significantly influence the adoption of green banking practices.

Wagner (2021) discussed the importance of economy, efficiency, and effectiveness in business and how they can impact a company's financial performance. The article argues that businesses that can achieve economy, efficiency, and effectiveness can improve their financial performance by reducing costs, increasing productivity, and improving customer satisfaction. The author concludes that businesses can achieve economy, efficiency, and effectiveness by using tools such as lean manufacturing, Six Sigma, and continuous improvement. By focusing on these principles, businesses can improve their financial performance and gain a competitive advantage.

Azmat and Shukralla (2020) aimed to investigate the impact of green banking on the financial performance of commercial banks in Bahrain. The authors used a sample of six commercial banks and employed a panel data regression model to analyze the data from 2010 to 2018. The author has employed Return on assets and return on equity as

dependent variables whereas green operations, environment management system, green product and services, and risk management as independent variables. The study found a positive and significant relationship between green banking activities and financial performance, particularly in terms of return on assets and return on equity. The authors concluded that green banking can enhance the financial performance of commercial banks in Bahrain and banks should continue to implement environmentally friendly practices.

Hossain and Rahman (2020) investigated the effect of green banking on the financial performance of the commercial bank of Bangladesh using secondary data collected from 14 private sector banks during the period 2011 to 2020. Data were analyzed using least square modeling. The author has employed financial performance (Return on Assets, Return on Equity, and Market value) as the dependent variable, green cost, and risk management as independent variables, and the size of the bank and operating cost ratio ascontrol variables. The author found that green cost is positively significant whereas risk management is not. Finally, the author concluded that there is a positive relationship between green banking practices and the financial performance of listed private commercial banks.

Kowalik (2020) investigated the impact of green banking practices on the financial performance of banks in Poland. The study used a sample of 9 banks operating in Poland from 2014 to 2018. The study employed regression analysis to determine the relationship between green banking practices and financial performance. The variables used in the study were: Return on Equity, Return on Assets, Loan to Deposit Ratio, Non-Performing Loans as dependent variables, Environmental Disclosure Score, Environmental Management System, and Green Loans as independent variables. The results showed that green bankingpractices positively affect the financial performance of banks, as measured by return on equity and return on assets. Additionally, the study found a positive relationship between green loans and financial performance. Finally, the study showed that banks with a higher environmental disclosure score and those that implemented environmental management systems achieved higher financial performance compared to banks that did not.

Le et al. (2020) investigated the impact of innovation, economy, efficiency, and effectiveness on the financial performance of Vietnamese banks. The study used a sample of 32 banks in Vietnam from 2014 to 2018 utilizing a panel data regression analysis to estimate the relationship between the independent variables (innovation,

economy, efficiency, and effectiveness) and financial performance. The findings of the study reveal that all the independent variables, namely innovation, economy, efficiency, and effectiveness, have a positive and significant effect on financial performance. The authorsconclude that Vietnamese banks should focus on innovation to improve their financial performance, as innovation has the most significant impact on financial performance. Additionally, the banks should strive for higher efficiency and effectiveness in their operations while considering the economic factors that affect their performance.

Vidyakala (2020) assessed the impact of green banking practices on a bank's environmental performance using primary data collected from 143 bank staff. Data were analyzed using multiple regression. The author has employed the bank's performance as adependent variable whereas environmental training, energy-efficient equipment, green loan, green project, and green policy as independent variables. The author concluded environmental training, energy-efficient practices, and green projects had a significant impact on the bank's performance.

Bhatia et al. (2019) investigated the relationship between green banking practices and the financial performance of Indian commercial banks. The study used secondary data from six Indian commercial banks from 2013 to 2017 and employed panel regression analysis to analyze the data. The variables analyzed in the study included green loans, green deposits, and carbon disclosure, as well as financial performance metrics such as return onassets and return on equity. The study found that green banking practices had a positive and significant effect on the financial performance of Indian commercial banks. Specifically, green loans were found to have a positive and significant impact on return on assets, while green deposits had a positive and significant impact on return on equity. Carbon disclosure was found to have an insignificant impact on both returns on assets and return on equity. The authors concluded that green banking practices can improve the financial performance of Indian commercial banks, particularly through green lending and green deposits. Overall, the study provides evidence that green banking practices have a positive relationship with financial performance, particularly through green lending and green deposits.

Brounen and Schotman (2019) conducted a study to investigate the impact of environmental and social governance on the financial performance of global banks. The authors analyzed data from 42 banks from 2006 to 2016 and employed a panel

regression model to examine the relationship between ESG and financial performance. The variables analyzed included the environmental, social, and governance scores of the banks as the independent variable, as well as financial performance metrics such as return on assets, return on equity, and net interest margin as the dependent variable. The study also controlled for other factors that may affect financial performance, including bank size, risk, and country-level characteristics. The study found a positive and significant relationship between environmental and social governance and financial performance, indicating that banks that implemented environmental and social governance practices had better financial performance than those that did not. The authors concluded that environmental and social governance practices can enhance the financial performance of the global.

Demirbag Donmez and Sahin (2019) investigated the impact of green banking practices on the financial performance of Turkish banks. The authors use secondary data from the financial statements of 11 banks for 5 years (2012-2016) and employ regression analysis to test the relationship between green banking practices and financial performance. The variables used in the study are: Dependent variable used was Return on Assets similarly independent variables are Green Loan Ratio, Risk Management, Carbon Disclosure Project, Eco-Efficiency Ratio, Green Deposit Ratio, Total Asset, Asset Quality, Loan to Deposit Ratio, and Bank Size. The study finds a positive and significant relationship between green banking practices and financial performance, as indicated by Return on Assets. Specifically, Green Loan Ratio, Risk Management, Carbon Disclosure Project, and Eco- Efficiency Ratio have a positive impact on Return on Assets, while GDR has a negative impact. The control variables (Total Asset, Asset Quality, Loan to Deposit Ratio, and Bank Size) also show a significant relationship with return on assets, except for Assets Quality. The author concludes green banking practices have a positive impact on the financial performance of Turkish banks and green banking practices can enhance the reputation of banks, attract socially responsible investors, and reduce environmental risks, which in turn can lead to better financial performance.

Fawad and Bukhari (2019) investigated the impact of efficiency, effectiveness, and economy on the financial performance of commercial banks in Pakistan. The study used a sample of 19 commercial banks in Pakistan between 2008 and 2017 and utilized a panel data regression analysis to estimate the relationship between the independent variables (efficiency, effectiveness, and economy) and financial

performance. The findings of the study reveal that efficiency and effectiveness have a positive and significant effect on financial performance, while the economy has a negative and insignificant effect on financial performance. The authors conclude that banks should focus on improving their efficiency and effectiveness to enhance their financial performance. The study suggests that Pakistani banks could benefit from adopting modern technologies and improving their operations and customer service to increase their efficiency and effectiveness.

Garaus et al. (2019) aimed to investigate the impact of green banking on the financial performance of European banks. The authors used the following variables: Green banking: measured through the percentage of green loans, green bonds, green investments in total assets, and green human resources. Financial performance: measured through return on assets, return on equity, net interest margin, and efficiency ratio. The authors found a positive and significant relationship between green banking activities and financial performance, as measured by return on assets, return on equity, and net interest margin. However, they found no significant relationship between green banking activities and the efficiency ratio. The author concluded that green banking can enhance the financial performance of European banks by improving their reputation and reducing environmental risks.

Harsono et al. (2019) examined the relationship between green banking and the financial performance of commercial banks in Indonesia. The variables analyzed in their study included green banking practices (measured by the number of green products and services offered by banks) as independent and return on assets, return on equity, net interest margin, and non-performing loans as independent. The study used secondary data from 16 commercial banks in Indonesia from 2013 to 2017 and employed panel regression analysis to analyze the data. The results showed a positive and significant relationship between green banking practices and financial performance, indicating that banks that implemented green banking practices had better financial performance than those that did not. Additionally, the study found that green banking practices reduced non-performing loans, indicating that they may help mitigate credit risks. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Indonesia and banks should continue to adopt environmentally friendly practices.

Herawati and Kusumastuti (2019) investigated the effect of green banking practices on the financial performance of commercial banks in Indonesia. The variables analyzed in

their study included green financing, measured by the number of green loans, green deposits, and green bonds issued by banks as independent variables, and financial performance metrics such as return on assets (ROA) and return on equity (ROE) as dependent variables. The study used secondary data from 11 commercial banks in Indonesia from 2013 to 2017 and employed panel regression analysis to analyze the data. The results indicated that green banking practices had a positive and significant effect on ROA and ROE, suggesting that banks that implemented green banking practices had better financial performance than those that did not. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Indonesia and banks should prioritize green financing in their operations.

Hoque et al. (2019) aimed to investigate the impact of green banking practices on the financial performance of commercial banks in Bangladesh. The study used secondary data between 2011 and 2017 from 30 commercial banks in Bangladesh. The author employed green banking practices as an independent variable, while the dependent variable was financial performance. The researchers used three dimensions of green banking practices, including green investing, green products and services, and green marketing. Financial performance was measured by return on assets and return on equity. The results showed that green banking practices have a positive and significant impact on financial performance in Bangladesh. Green investing and green marketing were found to have a significant positive impact on return on assets, while green products and services had a significant positive impact on return on equity. The author concludes that green banking practices can improve the financial performance of commercial banks in Bangladesh, which could encourage more banks to adopt environmentally sustainable practices.

Islam et al. (2019) examined the relationship between green banking and the financial performance of commercial banks in Bangladesh. The study used secondary data from 30 commercial banks in Bangladesh from 2010 to 2017 and employed panel regression analysis to analyze the data. The variables analyzed in their study included green financing measured by the number of green loans and green bonds issued by banks, profitability measured by return on assets and return on equity, and asset quality measured by non- performing loans. The results showed that green financing had a positive and significant impact on profitability and asset quality, indicating that banks that implemented green banking practices had better financial performance than

those that did not. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Bangladesh.

Muradoglu and Taskin (2019) investigated the impact of green banking on the financial performance of commercial banks in Turkey. The variables analyzed in their study included green loans, green deposits, and carbon disclosure, as well as financial performance metrics such as return on assets and return on equity. The study used secondary data from six commercial banks in Turkey from 2012 to 2017 and employed panel regression analysis to analyze the data. The results showed that green banking practices had a positive and significant effect on return on assets and return on equity, indicating that banks that implemented green banking practices had better financial performance than those that did not. The study also found a positive and significant relationship between green loans and financial performance. However, the relationship between green deposits and carbon disclosure with financial performance was found to be insignificant. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Turkey, particularly through green lending, and banks should prioritize lending to green projects to improve their financial performance.

Rani and Bhatia (2019) explored the relationship between green banking practices and the financial performance of select banks in India. The study is based on a sample of 10 banks that were chosen based on their environmental sustainability initiatives and their market share. Data was analyzed using multiple regression. The authors collected data on the banks' financial performance, including profitability, return on assets, and return on equity, as well as data on their green banking practices, such as investments in renewable energy projects and the implementation of energy-efficient technologies. The results of the study suggest that there is a positive relationship between green banking practices and financial performance. Specifically, the authors found that banks that implemented more green banking practices tended to have higher profitability, return on assets, and return on equity compared to banks that did not.

Rasheed and Adekunle (2019) examined the relationship between green banking practices and the financial performance of commercial banks in Nigeria. The study used secondary data from six commercial banks in Nigeria from 2012 to 2017 and employed panel regression analysis to analyze the data. The variables analyzed in their study included green loans, green deposits, and carbon disclosure, as well as financial performance metrics such as return on assets and return on equity. The results showed

that green banking practices had a positive and significant effect on the financial performance of commercial banks in Nigeria. Specifically, green loans and carbon disclosure were found to have a positive and significant impact on return on assets and return on equity. However, the relationship between green deposits and financial performance was found to be insignificant. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Nigeria, particularly through green lending and carbon disclosure.

Tamimi and Al-Mazrooei (2018) aimed to investigate the impact of green banking practices on the financial performance of commercial banks in the UAE. The authors used a sample of 17 banks and employed a panel data regression model to analyze the data from 2011 to 2016. The author has employed financial performance as a dependent variable whereas green banking practices, environment management systems, environmental reporting, and risk management as independent variables. The author found that green banking practices, including environmental management systems, environmental reporting, and environmental risk management, have a positive impact on the financial performance of commercial banks in the UAE. The authors concluded that banks that implemented green banking practices experienced higher profitability, asset quality, and capital adequacy ratios. Also green banking practices can enhance the financial performance of commercial banks in the UAE and that banks should continue to implement environmentally friendly practices.

Jaworski and Kryk (2018) conducted a study with a sample consisting of 14 commercial banks in Poland, selected based on the availability of their annual reports and their focus on sustainability. The data was collected for the years 2011 to 2016, and a panel data regression analysis was used to examine the relationship between green banking and financial performance. The independent variable used in the study was green banking, measured by the Green Banking Index (GBI) developed by the Polish Bank Association, which considers a bank's environmental risk management, energy efficiency, and green products and services. The dependent variables were financial performance measures, including return on assets (ROA), return on equity (ROE), and net interest margin (NIM). The study found a positive and significant relationship between green banking and financial performance, as indicated by higher Return on Assets, Return on Equity, and Net interest margin for banks with higher Green banking index scores. Additionally, the authors noted that the positive impact of green banking on financial performance was more significant during the years of

economic crisis and that green banking can serve as a strategic response to market turbulence.

Mahfudz and Pramono (2018) studied the effect of green banking on the financial performance of commercial banks in Indonesia. The study used secondary data from eightcommercial banks in Indonesia from 2012 to 2016 and employed panel regression analysis to analyze the data. The variables analyzed in their study included green lending, green deposits, and green investment, as well as financial performance metrics such as return on assets and return on equity. The results showed that green banking practices had a positiveand significant effect on return on assets and return on equity, indicating that banks that implemented green banking practices had better financial performance than those that did not. The authors concluded that green banking practices can enhance the financial performance of commercial banks in Indonesia banks should continue to adopt environmentally friendly practices.

Risal (2018) explored the impact of green banking practices on banks' environmental performance in Kathmandu Valley using primary data collected from 143 bank employees. Data were analyzed using multiple regression. The author has employed the bank's performance as a dependent variable whereas environmental training, energy-efficient equipment, green loan, green project, and green policy as independent variables. The author concluded that energy-efficient equipment and green policy posed a significant impact on a bank's environmental performance; green loans and green projects did not. Similarly, environmental training contributed mildly to a bank's environmental performance.

Shaumya (2017) explored the impact of green banking practices on bank performance in Srilanka using primary data collected from 155 bank staff. Data were analyzed using multiple regression analysis. The author has employed the bank's environmental performance as a dependent variable whereas green banking activities (employee, policy, operation, and customer) as independent variables. The study found that green banking practices had a positive and significant impact on a bank's environmental performance, overall, and it also found that employee-related practice, daily operation-related practice, and a bank's policy-related practice were found to have a positive and significant impact on a bank's environmental performance; however, the customer-related practice had no significant impact on bank's environmental performance.

Ishak and Dangi (2016) examined the relationship between the efficiency,

effectiveness, and financial performance of Malaysian banks with a sample of 14 commercial banks using regression analysis. The authors used three variables: efficiency, effectiveness, and financial performance. Efficiency was measured using the input/output ratio, effectiveness was measured using non-performing loans, and financial performance was measured using return on assets and return on equity. The study found a positive and significant relationship between efficiency and financial performance, as well as between effectiveness and financial performance. The authors also found that size, ownership structure, and economic conditions moderate the relationship between efficiency, effectiveness, and financial performance. The author concludes that both efficiency and effectiveness are significant predictors of financial performance in the Malaysian banking industry.

The key articles reviewed in this chapter are summarized in table 2.1

Table 1

Summary of key articles reviewed

Author (Year)	Variable		Findings
	Independent	Dependent	
Chen (2022)	Green Human Resources, Daily Operations, Green Business Strategy, Green Investment, and Customer Related	Green Financing and Environmental Performance	Green Human Resources, Daily Operation, Green Business Strategy, and Green Investment have significant positive effects on Green Financing, Contrary to Customer Relations which was not statistically significant.
Zhang (2022)	Green Investment, Green Business Strategy, and Carbon Footprint	Green Financing and Environmental Performance	Green Investment, Green Business Strategy, and Carbon Footprint significantly positive effect on banks 'environmental performance and sources of green financing, and the

			sources of green financing significantly influence banks' environmental performances
Hossain et al.(2021)	Green Loans and Green Bonds	ProfitabilityAnd Asset Quality	Green financing had a positive and significant impact on profitability and asset quality, indicating that banks that implemented green banking practices had better financial performance
Rshman (2021)	Green Business Strategy, Green Business Operation, and Green Investment	Green Financing and Environmental Performance	A green business strategy, green business operation, and green investment significantly influence the adoption of green banking practices.
Wagner (2021)	Economy, Efficiency, And Effectiveness	Financial Performance	Economy, efficiency, and effectiveness can significantly improve their financial performance by reducing costs, increasing productivity, and improving customer satisfaction

Azmat and Shukralla (2020)	Green Operations, Environment Management Systems, Green Products and Services, and Risk Management	Return On Assets and Return on Equity	The study found a positive and significant relationship between green banking activities and financial performance, particularly in terms of return on assets and return on equity
Hossain and Rahman (2020)	Green Cost and Risk Management	Return On Assets, Return on Equity, and Market Value	Green cost is positively significant whereas Risk management is not
Kowalik (2020)	Environmental Disclosure Score, Environmental Management System, and Green Loans	Return On Equity, Return on Assets, Loan To Deposit Ratio, Non-Performing Loan	Green Banking practices positively affect the financial performance of banks, as measured by return on equity and return on assets
Le et al. (2020)	Innovation, Economy, Efficiency, And Effectiveness	Financial Performance	Innovation, economy, efficiency, and effectiveness, have a positive and significant effect on financial performance.
Vidyakala (2020)	Environmental Training, Energy-Efficient Equipment, Green Loans, Green Projects, and Green Policy	Bank's Performance	Environmental training, energy-efficient practices, and green projects had a significant impact on the bank's performance whereas green policy does not.
Bhatia et al. (2019)	Green Loans, Green Deposits, And Carbon Disclosure	Return on assets and Return on equity	Green loans were found to have a positive and significant impact on

			return on assets, while green deposits had a positive and significant impact on return on equity. Carbon disclosure was found to have an insignificant impact on both Return on assets and Return on equity
Demirbag et al. (2019)	Green Loan Ratio, Risk Management, Carbon Disclosure Project, Eco- Efficiency Ratio, Green Deposit Ratio, Total Asset, Asset Quality, Loan to Deposit Ratio, and Bank Size	Return On Assets	A study finds a positive and significant relationship between green banking practices and financial performance, as indicated by return on assets. Specifically, Green Loan Ratio, Risk Management, Carbon Disclosure Project, and Eco- Efficiency have a positive impact on return on assets, while Green Deposit Ratio has a negative impact. The control variables (Total Asset, Asset Quality, Loan to Deposit Ratio, and Bank Size) also show a significant relationship with return on assets, except for asset quality.
Fawad and Bukhari (2019)	Efficiency, Effectiveness, And Economy	Financial Performance	efficiency and effectiveness have a positive and significant

			effect on financial performance, while the economy has a negative and insignificant effect on financial performance
Garaus et al. (2019)	Green Loans, Green Bonds, Green Investments in Total Assets, and Green Human Resource	Return On Assets, Return on Equity, Net Interest Margin, and Efficiency Ratio	Authors found a positive and significant relationship between green banking activities and financial performance, measured by Return on Assets, Return on Equity, and Net Interest Margin. However, they found no significant relationship between green banking activities and the Efficiency Ratio
Harsono et al. (2019)	Green Products and Services	Return On Assets, Return on Equity, Net Interest Margin, And Non-Performing Loans	The results showed a positive and significant relationship between green banking practices and financial performance, indicating that banks that implemented green banking practices had better financial performance than those that did not
Herawati and Kusumastuti (2019)	Green Loans, Green Deposits, And Green Bonds	Return On Assets and Return on Equity	Results indicated that green banking practices had a positive and significant effect on Return on Assets and Return on

Equity

Author	Variables	Measures	Findings
Hoque et al. (2019)	Green Investing, Green Products and Services, And Green Marketing	Return On Assets and Return on Equity	Green Investing and green marketing were found to have a significant positive impact on return on assets, while green products and services had a significant positive impact on return on equity
Islam et al. (2019)	Green Loans and Green Bonds	Return On Assets, Return on Equity, And Asset Quality	Green financing had a positive and significant impact on profitability and asset quality
Muradoglu and Taskin (2019)	Green Loans, Green Deposits, And Carbon Disclosure	Return On Assets and Return on Equity	The study also found a positive and significant relationship between green loans and financial performance. However, the relationship between green deposits and carbon insignificant performance was found to be disclosure with financial
Rani and Bhatia (2019)	Investments In Renewable Energy Projects and The Implementation of Energy- Efficient Technologies	Profitability, Return on Assets, And Return on Equity	There is a positive relationship between green banking practices and financial performance

Rasheed and Adekunle (2019)	Green Loans, Green Deposits, And Carbon Disclosure	Return On Assets and Return on Equity	Green loans and carbon disclosure were found to have a positive and significant impact on return on assets and return on equity. However, the relationship between green deposits and financial performance was found to be insignificant
Tamimi and Al-Mazrooei (2018)	Environmental Management System, Environmental Reporting and Risk Management	Profitability, Asset Quality, And Capital Adequacy Ratios	The study found that green banking practices, including environmental management systems, environmental reporting, and environmental risk management, have a positive impact on the financial performance of commercial banks in the UAE
Jaworski and Kryk (2018)	Environmental Risk Management, Energy Efficiency, And Green Products and Services	Return On Assets Return on Equity), And Net Interest Margin	The study found a positive and significant relationship between green banking and financial performance, as indicated by higher Return on Assets, Return on Equity, and Net interest margin for banks with higher green banking index scores

Mahfudz and Pramono (2018)	Green Lending, Green Deposits, And Green Investment	Return On Assets and Return on Equity	The results showed that green banking practices had a positive and significant effect on return on assets and return on equity
Risal (2018)	Environmental Training, Energy-Efficient Equipment, Green Loans, Green Projects, And Green Policy	Financial Performance	The author concluded that energy-efficient equipment and green policy posed a significant impact on a bank's environmental performance; green loans and green projects did not.
Shaumya (2017)	Employee- Related Practice, Daily Operation- Related Practice, and a Bank's Policy- Related Practice	Financial Performance	Employee-related practice, daily operation-related practice, and a bank policy-related practice were found to have a positive and significant impact on a bank's performance; however, the customer-related practice had no significant impact on the bank's performance.
Ishak and Dangi (2016)	Efficiency, Effectiveness	Return On Assets and Return On Equity	The author found a positive and significant relationship between efficiency and financial performance, as well as between effectiveness and financial performance.

2.3 Research Gap

The existing body of research has made significant contributions to our understanding of the relationship between green banking practices and financial performance across various regions and contexts. However, in the specific context of commercial banks in Nepal, there remains a notable research gap. While the reviewed articles shed light on variables such as Green Investment, Risk Management, Green HRM, Green Product and Service, Green Business Strategy, Efficiency, Effectiveness, and Economy, the lack of studies specifically tailored to the Nepalese banking sector limits the generalizability of the findings (Chen, 2022; Zhang, 2022; Hossain et al., 2021).

One prominent gap in the literature is the insufficient exploration of customer-related practices in the context of Nepal. Both Chen (2022) and Shaumya (2017) emphasize the importance of customer-related practices in the overall impact of green banking on financial performance. However, the existing research on commercial banks in Nepal does not explicitly address the influence of customer-related practices on financial outcomes. This gap presents an opportunity for future research to delve into the dynamics of customer relations within the Nepalese banking sector and its potential implications for financial performance.

Temporal evolution represents another underexplored aspect in the reviewed literature. The articles span from 2016 to 2022, capturing a snapshot of the relationship between green banking practices and financial performance. However, there is a lack of research investigating how these relationships may evolve over time in the Nepalese banking landscape. A longitudinal analysis could offer insights into the sustainability and adaptability of green banking practices over the years (Chen, 2022; Ishak & Dangi, 2016).

Moreover, the reviewed studies predominantly focus on individual variables in isolation, and there is a need for more integrated approaches considering the combined effects of multiple factors. While individual variables like Green Investment, Risk Management, and Efficiency are examined, a holistic understanding of their collective impact on financial performance is essential for a nuanced comprehension of the intricacies involved (Zhang, 2022; Fawad & Bukhari, 2019).

CHAPTER-III
RESEARCH METHODOLOGY

The research methodology outlines the procedures and techniques used in all areas of the investigation. Research technique aids in the solution of systemic issues. It employs several sequential phases for the researcher to implement. It offers a fundamental framework on which research is built and allows one to discover the result of a specific problem on a given topic. Data collection methods are employed in research methodology. Research methodology sets the overall plan associated with the study which may include publications research, interview, survey, and other research techniques and could include both present and historical information.

The main statistical models and techniques that were utilized to look at the relationship between the relevant variables are described in this chapter. It offers the fundamental foundation on which the study is built. It is vital to first define the study process before giving the data analysis and interpretation. Without a research technique, there is less chance of discovering the ultimate findings since the research does not approach problems methodically. The method employed for data analysis and measurement includes the instruments, data analysis techniques detailed on the overall analysis plan have been dealt with.

3.1 Research Design

This research plan aims to evaluate green banking practices in a few Nepalese commercial banks. A research project's broad framework or strategy, known as research design, guides the actions that will be carried out during the investigation. The research design provides the framework for the study, directs the use of the research instruments and the sampling strategy, and acts as a roadmap for data collecting and analysis. The study concentrated on green banking practices and examined how employees in Nepalese commercial banks perceived their financial success.

To evaluate the research hypothesis, the study used both a descriptive and an exploratory research design. The acquisition of primary data is how the entire research project is carried out. Via employee questionnaires, primary data was gathered. All levels of employees may easily understand the questionnaire because of its simplicity.

3.2 Population and Sample

The universe for the study refers to the entire staff of commercial banks of Nepal. Convenience sampling method is utilized in this study because no agency maintains data on those visitors. Considering that our population is more than twenty thousand, the formula for determining sample size is.

$n_0 = \frac{z^2 pq}{l^2}$ (Cochran, et al., 2004).

Where, n_0= sample size required for study,

standard tabulated value for 5% level of significance (z) = 1.96,

p= Prevalence of food tourist 50 % = 0.5 so, p= 0.5,

q= 1-p, = 0.5.

We undertake 5% allowable error that can be tolerated.

i.e. (e) = 5%.

Thus, the total population for the study

$n_0 = \frac{z^2 pq}{l^2} =$

$(1.96)^2 \times 0.5 \times 0.5 / (0.05)^2$

= 384.16.

Also, we undertake non-response error 5%,

i.e., 384.16*5/100

= 19.20.

Adding all, the sample size necessary for the study was (384.16±19.20). Based on the sampling formula, a total of 400 respondents is provided with a questionnaire for the study.

Table 2

Banks selected for the study along with the number of observations

	Frequency	Percent
Citizen Bank Limited	29	7.2
Everest Bank Limited	34	8.5
Global IME Bank Limited	35	8.8
Himalayan Bank Limited	24	6.0
Jyoti Bikas Bank Limited	4	1.0
Laxmi Sunrise Bank Limited	48	12.1

Nabil Bank Limited	32	8.0
Nepal Bank Limited	6	1.5
Nepal Investment Mega Bank Limited	29	7.2
Nepal SBI Bank Limited	27	6.8
NIC Asia Bank Limited	31	7.8
NMB Bank Limited	42	10.5
Siddhartha Bank Limited	16	4.0
Sindhu Bikash Bank Limited	8	2.0
Standard Chartered Bank Limited	35	8.8
Total	400	100.0

Note: Google form survey

3.3 Sources of Data

This study is based only on primary data. A self-administered survey questionnaire alongside the help of Research Based Article was used as the main primary data gathering instrument to assess the opinion of employees regarding green banking practices and the perceived financial performance of Nepalese commercial banks. After the collection of the questionnaire, the responses derived from the questionnaire were coded in a simple form. A coded file was prepared and analyzed through the SPSS package and Microsoft Excel toobtain meaningful results from the primary data. Frequency, Percentage, Mean, Correlation, and Regression tools were used in the SPSS package to derive the meaningful relationship between green banking practices and the perceived financial performance of Nepalese commercial banks.

3.4 Data Processing Procedure

This section elaborates on how data was collected for the study purpose. Data collection was done through the respondents of the commercial banks. The respondents of the commercial banks were from different branches of the commercial banks. There were altogether 385 responses. The structural questionnaire is designed to collect various information regarding green banking practices and the firm's perceived performance. The first part of the questionnaire dealt with demographic information such as the bank's name, gender, age, education, designation, and years of service. This part of the questionnaire was used for the descriptive analysis of the

respondents. Likewise, the second part of the questionnaire was designed to identify the green banking practices of Nepalese commercial banks. There were lots of statements that characterize each factor of green banking practices. Finally, the third part of the questionnaire was designed to analyze the influence of perceptual financial indicators such as efficiency, effectiveness, and economy upon the perceived financial performance of the commercial bank. Each statement was measured on a scale where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4= agree and 5 = strongly agree. The level of agreement and disagreement of each statement was used to measure the behavior of the respondents about the given statement.

3.5 Data Analysis Tools and Techniques

This section gives a presentation on how empirical data was used for research purposes to study green banking practices and the perceived financial performance of Nepalese commercial banks. First, all data was collected through the questionnaire and then it was organized. After gathering all the complete questionnaires from the respondents, for the analysis and interpretation of the data, Statistical Package of Social Science (SPSS) computer software and Microsoft Excel were used. Total responses collected from the respondent were coded and tabulated into an SPSS worksheet.

The questions were constructed on a five-point scale, and respondents were asked to indicate how much they agreed or disagreed with the statement regarding green banking practices and the perceived bank's financial performance. Personal information about respondents, such as their age, gender, educational qualifications, bank name, work experience, and position, is included in the questionnaire.

The data were examined using standard descriptive statistics, such as the means for summarizing the data and range for comparing scales. Correlation and regression analysis of primary data was the final step in the data analysis process. Frequency distributions, descriptive statistics for mean values, and statistical tests of significance such as regression analysis, t-tests, F-tests, and modified R^2 were all employed to determine the results.

3.6 Research Framework

A review of different works of literature reveals that different studies are conducted in different periods and at different places around the globe and have also contributed to

enhancing the fundamental understanding and knowledge, which is required to make this study meaningful and purposeful. In this research, various green banking practices are systematically analyzed and generalized. Past researchers are not properly analyzed the status of green banking practices and their impact on the perceived financial performanceof commercial banks in Nepal.

3.7 Definition of Variables

Green Investment (GI)

Green banking involves making environmentally sustainable investment choices. Commercial banks can invest in green projects, such as renewable energy initiatives, sustainable infrastructure, or environmentally friendly technologies. These investments contribute to the development of a green economy while potentially offering competitive returns (Turrentine, 2022).

Risk Management (RM)

Green banking practices should include a comprehensive risk management framework. This involves assessing and mitigating environmental, social, and governance (ESG) risks associated with various financial activities. Proper risk management helps banks navigate uncertainties related to climate change, regulatory changes, and reputational risks (Bhatt, 2020).

Green Human Resource (GHR)

Green HRM involves integrating sustainability into human resource practices. This includes promoting a green culture among employees, providing training on environmental practices, and aligning HR policies with sustainability goals. Engaging and educating employees on green initiatives can enhance the overall effectiveness of green banking practices (Chen et al., 2022).

Green Products and Services (GPS)

Commercial banks can offer a range of green financial products and services. This may include green loans for eco-friendly projects, green mortgages for energy-efficient homes, and green investment funds. Providing customers with sustainable financial options can attract environmentally conscious clients and drive positive environmental impact (Hossain et al., 2020).

Green Business Strategy (GBS)

A comprehensive green business strategy involves aligning the bank's overall

objectives with sustainable practices. This includes setting clear sustainability goals, incorporating ESG factors into decision-making processes, and regularly reporting on environmental performance. A well-defined green business strategy can contribute to long-term profitability and positive brand image (Mishra, 2023).

Efficiency (EY)

Green banking practices often lead to increased operational efficiency. This can include adopting energy-efficient technologies, reducing paper usage through digitalization, and implementing sustainable supply chain practices. Improved efficiency not only contributes to cost savings but also aligns with environmental sustainability objectives (Bohora, 2018).

Effectiveness (ES)

The effectiveness of green banking practices is measured by the positive impact on the environment and society. This includes carbon footprint reduction, support for clean energy initiatives, and contributions to social and community development. Effective green banking practices should demonstrate tangible outcomes in line with sustainability goals (Hossain et al., 2020).

Economy (EC)

Green banking practices play a role in shaping the broader economy by directing financial resources toward sustainable and environmentally friendly projects. This contributes to the development of a green economy, fostering innovation and creating employment opportunities in sectors aligned with environmental sustainability (Mishra, 2023).

Figure 1

Conceptual framework of the study

Independent variables	**Dependent variables**
Green Investment (GI)	Perceived Financial Performance
Risk Management (RM)	Efficiency (EY)
Green Human Resource (GHR)	Effectiveness (ES)
Green Product and Services (GPS)	Economy (EC)
Green Business Strategy (GBS)	
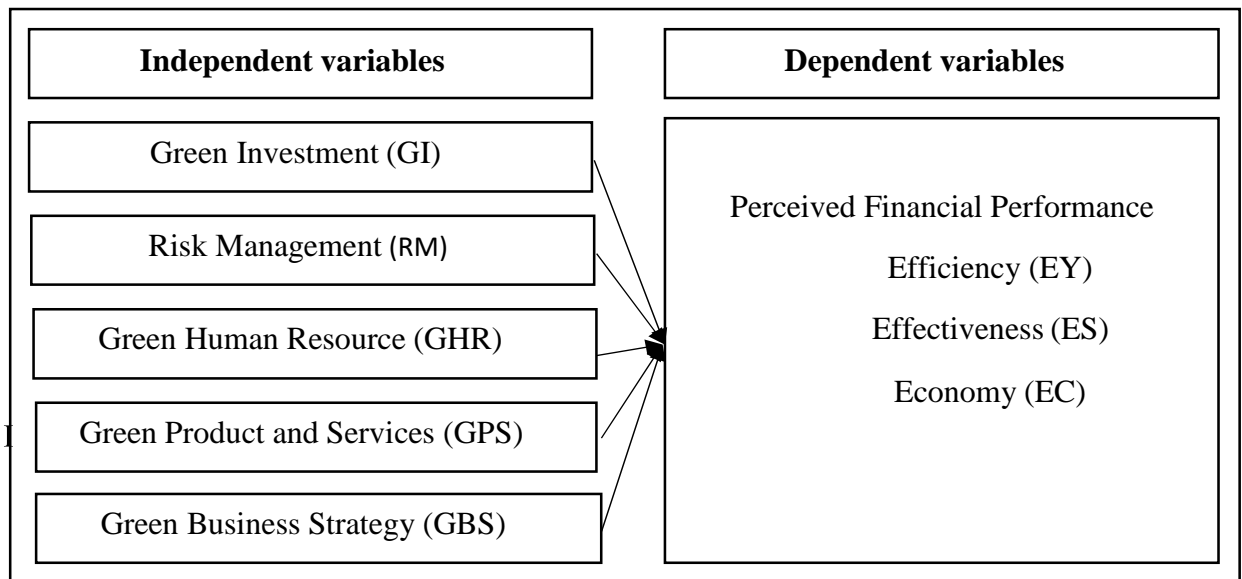
Source: (Shampa & Jobaid, 2017)

Based on theory and major empirical pieces of evidence surveyed, this study has taken Perceived Financial Performance Indicators as dependent variables whereas Green Investment, Risk Management, Green Human Resources, Green Products and Services, and Green Business Strategy as independent variables to measure the influence of Green Banking on Perceived Financial Performance of Nepalese Commercial Banks.

Most research in the international area like India, Bangladesh, China, and western countries has covered or focused on green banking practices as determinants of the sustainability of banks and banks' environmental performance. However, to the best of the author's knowledge, very few studies focused on banking sustainability in alignment with green banking practices in Nepal. Therefore, having identified this gap in the extant literature, the present study along with significant investigates the relationship and the impact of green banking practices and the perceived financial performance of Nepalese commercial banks. It is a valuable attempt to plug the gap.

3.8 Regression Analysis

The study's econometric models aim to explain the connection between selected green baking practices and perceived financial performance. The least square regression

model is employed in this study to determine which of the hypotheses is supported by the data. Regression analysis may be used to determine which of the study's hypotheses is usually consistent or inconsistent with the data because each one implies a distinct time-ordered and signed connection. The following regression models are used to examine the effect ofdigitalization on financial performance:

The regression equation based on the coefficients of variables can be inferred as:

$$PFP = \beta_0 + \beta_1 GI + \beta_2 RM + \beta_3 GHR + \beta_4 GPS + \beta_6 GBS + e$$

Where,

PFP   = Perceived Financial Performance (Dependent Variable)

GI   = Green Investment

RM   = Risk Management

GHR = Green Human Resources

GPS   = Green Products and Services

GBS   = Green Business Strategy

β_0 = Intercept of the Dependent Variables

β = Intercept of Independent Variables

e = error term.

CHAPTER IV

RESULT AND DISCUSSION

This chapter deals with the presentation, interpretation, and analysis of primary data to analyze the relationship between green banking practices and the perceived financial performance of Nepalese commercial banks. The main purpose of this chapter is to analyze and interpret the collected data. To obtain the result, the data have been analyzed according to the research methodology as mentioned in the earlier chapter. The first section deals with the presentation and analysis of primary data and presents the results of the questionnaire survey. The second section covers the analysis of the regression model including correlation analysis. The third section of this chapter deals with the concluding remarks associated with the basis of findings from primary data analysis.

4.1 Demographic Profile

Table 1

Demographic Profile

	Frequency	Percentage
Gender		
Female	192	48.0
Male	208	52.0
Age		
21 -40 years	390	97.5
less than 20	10	2.5
Educational qualification		
Bachelor's level	75	18.8
Intermediate or less	1	0.2
Master's Level and above	324	81.0
Working experience		
11 to 15 years	5	1.3
5 years or less	239	59.7
6 - 10 years	149	37.2
Above 15 years	7	1.8

Job Position		
Assistant	357	89.2
Clerk	1	0.3
Manager	2	0.5
Officer	40	10.0

The demographic profile of the respondents in the study is characterized by a diverse representation across various demographic categories. The gender distribution indicates a relatively balanced participation, with 48.0% female respondents and 52.0% male respondents. This gender balance suggests a fair representation of both men and women in the study, providing a more inclusive perspective on the research findings.

In terms of age, the majority of respondents fall within the age range of 21 to 40 years, constituting 97.5% of the total respondents. This age group dominance implies that the study primarily captures the opinions and experiences of individuals in the early to mid-stages of their professional and personal lives. However, a small percentage (2.5%) of respondents are less than 20 years old, introducing a minor but notable variation in age representation.

Educational qualification among the respondents is diverse, with 18.8% holding a Bachelor's level qualification, 0.3% having an Intermediate or lower qualification, and a significant 81.0% possessing a Master's level qualification and above. This educational diversity indicates a well-educated sample, with the majority of respondents having attained higher academic qualifications, potentially contributing to a more informed and nuanced understanding of the research topic.

Regarding working experience, the respondents cover a range of professional backgrounds. The largest portion, 59.8%, has 5 years of experience or less, while 37.3% have 6 to 10 years of experience. A smaller percentage, 1.3%, falls within the 11 to 15 years of experience category, and 1.8% fall within the 6 to 10 years range. This distribution reflects a mix of both early-career professionals and those with more extensive work experience, offering a broad spectrum of perspectives on the subject matter.

In terms of job positions, the majority of respondents hold the position of an assistant, constituting 89.3% of the total. A small percentage, 0.3%, is categorized as a clerk, while 0.5% are managers, and 10.0% are officers. This distribution indicates that the study primarily captures the perspectives of individuals in assistant roles, providing

insights into the opinions and experiences of this specific occupational group within the surveyed population.

4.2 Descriptive Analysis

Table 2

Descriptive Analysis

	N	Min	Max	Mean	Std. Dev
Green Investment	400	1.0	4.6	3.122	.7154
Risk Management	400	1.2	4.4	3.237	.5401
Green HRM	400	1.0	5.0	3.434	.7183
Green Product and Service	400	1.2	4.4	3.295	.6381
Green Business Strategy	400	1.0	4.6	3.228	.4806
Efficiency	400	1.0	4.75	3.45	0.6105
Effectiveness	400	1.00	4.75	3.3837	.67440
Economy	400	1.00	4.50	3.366	.49797

Source: Calculated using SPSS

Where (1= strongly disagree, 2= disagree, 3= neutral, 4= agree and 5= strongly agree)

The responses for Green Investment range from 1.0 to 4.6, with a mean value of 3.122 and a standard deviation of 0.7154. This suggests that opinions on green investment are somewhat varied, with the mean indicating a tendency towards agreement but with a notable degree of dispersion among respondents.

In the context of Risk Management, responses span from 1.2 to 4.4, with a mean value of 3.237 and a standard deviation of 0.5401. The relatively lower standard deviation indicates a higher level of agreement compared to Green Investment, suggesting a more consistent view among respondents regarding the role of risk management in green practices.

Green HRM receives responses from 1.0 to 5.0, indicating a wider range of opinions. The mean value is 3.434, and the standard deviation is 0.7183. The higher standard deviation suggests a more diverse range of opinions on the role of green HRM, with some respondents expressing strong disagreement or agreement.

The responses for Green Product and Service range from 1.2 to 4.4, with a mean value of 3.295 and a standard deviation of 0.6381. Similar to Green Investment, there is a moderate level of agreement among respondents, but with a notable degree of

variability in opinions.

For Green Business Strategy, responses vary from 1.0 to 4.6, with a mean value of 3.228 and a standard deviation of 0.4806. The lower standard deviation indicates a more consistent agreement among respondents regarding the importance of green business strategies.

Responses for Efficiency range from 1.0 to 4.75, with a mean value of 3.45 and a standard deviation of 0.6105. The relatively higher mean and standard deviation suggest a moderate level of agreement with some variability in opinions regarding the role of efficiency in green practices.

In terms of Effectiveness, responses vary from 1.00 to 4.75, with a mean value of 3.3837 and a standard deviation of 0.67440. Similar to Efficiency, there is a moderate level of agreement among respondents, but with a slightly higher standard deviation, indicating some diversity in opinions.

Responses for Economy range from 1.00 to 4.50, with a mean value of 3.366 and a standard deviation of 0.49797. The lower standard deviation indicates a more consistent agreement among respondents regarding the relationship between green practices and economic considerations.

4.3 Correlation Analysis

Table 3

Correlation analysis

	GI	RM	GHR	GPS	GBS	EY	ES	EC
GI	1							
RM	$.828^{**}$	1						
GHR	$-.196^{**}$	$.112^{*}$	1					
GPS	$.905^{**}$	$.905^{**}$	-.070	1				
GBS	$-.111^{*}$	$.221^{**}$	$.888^{**}$	-.008	1			
EY	$.287^{**}$	$.432^{**}$	$.301^{**}$	$.561^{**}$	$.252^{**}$	1		
ES	$.545^{**}$	$.644^{**}$	.059	$.729^{**}$	-.002	$.814^{**}$	1	
EC	$.247^{**}$	$.383^{**}$	$.552^{**}$	$.184^{**}$	$.667^{**}$	.067	$.135^{**}$	1

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Green Investment shows a strong positive correlation with Green Product and Service

(GPS) at 0.905** and a moderate positive correlation with Efficiency (EY) at 0.287**. This implies that as Green Investment increases, there is a corresponding increase in the emphasis on green product and service development, as well as a positive association with organizational efficiency.

Risk Management exhibits a strong positive correlation with Green Investment (GI) at 0.828**, indicating that as organizations focus more on green investment, they also tend to prioritize risk management practices. This suggests a complementary relationship between green investment and risk management.

Green HRM is negatively correlated with Green Investment (GI) at -0.196** and positively correlated with Green Business Strategy (GBS) at 0.888**. This suggests that organizations emphasizing green HRM may allocate fewer resources to green investment but are more likely to align their human resource practices with a green business strategy.

Green Product and Service (GPS) has a strong positive correlation with Green Investment (GI) at 0.905** and a moderate positive correlation with Efficiency (EY) at 0.301**. This indicates that organizations focusing on green investment are more likely to develop green products and services, and there is a positive association with efficiency.

Green Business Strategy (GBS) exhibits a positive correlation with Risk Management (RM) at 0.221** and a moderate positive correlation with Green HRM (GHR) at 0.888**. This suggests that organizations with a strong emphasis on green business strategy are more likely to incorporate risk management practices and align their human resource management strategies with green initiatives.

Efficiency (EY) shows a positive correlation with Green Investment (GI) at 0.287** and a moderate positive correlation with Green Product and Service (GPS) at 0.301**. This implies that organizations investing in green practices are also likely to prioritize efficiency in their operations and product and service development.

Effectiveness (ES) is strongly correlated with Green Investment (GI) at 0.545** and Green Business Strategy (GBS) at 0.729**. This suggests that organizations investing in green practices are more likely to be perceived as effective, and there is a positive association between effectiveness and the adoption of green business strategies.

Economy (EC) exhibits positive correlations with Risk Management (RM) at 0.383** and Green Business Strategy (GBS) at 0.667**. This indicates that organizations incorporating risk management practices and emphasizing green business strategies

are more likely to be associated with economic considerations.

4.4 Regression Analysis

4.4.1 Efficiency

Table 4

Model summary

Model	R	R Square	Adjusted R square	Std. error of the estimate
1	.831[a]	.690	.686	.34221

a. Predictors: (Constant), GBS, GPS, GHR, GI, RM

Table 4 provides a summary of the regression model, offering key statistics to assess the model's goodness of fit. The model includes several predictors—Green Business Strategy (GBS), Green Product and Service (GPS), Green HRM (GHR), Green Investment (GI), and Risk Management (RM). The coefficient of determination (R Square) is 0.690, indicating that approximately 69% of the variance in the dependent variable (EY) can be explained by the predictors. The adjusted R Square, which considers the number of predictors and sample size, is 0.686. The value of R, the correlation between the observed and predicted values, is 0.831, suggesting a strong positive linear relationship. The standard error of the estimate, measuring the variability of the actual values around the regression line, is 0.34221.

Table 5

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.609	5	20.522	175.236	<.001[b]
	Residual	46.141	394	.117		
	Total	148.750	399			

a. Dependent variable: EY

b. Predictors: (Constant), GBS, GPS, GHR, GI, RM

Table 5 presents the analysis of variance (ANOVA) results for the regression model. The sum of squares decomposition shows that the regression model is statistically significant ($p < 0.001$), as indicated by an F-statistic of 175.236. The F-statistic

compares the explained variance by the model with the unexplained variance, providing evidence of the model's overall significance in predicting the dependent variable (EY).

Table 6

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.871	.152		5.742	<.001
	GI	-.788	.060	-.923	-13.030	<.001
	RM	-.860	.092	-.761	-9.388	<.001
	GHR	.216	.054	.254	3.986	<.001
	GPS	2.012	.087	2.103	23.034	<.001
	GBS	.140	.086	.110	1.633	.103

a. Dependent Variable: EY

Table 6 displays the coefficients of the predictors in the regression model. The unstandardized coefficients represent the change in the dependent variable (EY) for a one-unit change in each predictor, holding other predictors constant. The constant term (intercept) is 0.871. The standardized coefficients (Beta) provide a measure of the relative importance of each predictor. Green Product and Service (GPS) has the highest standardized coefficient (Beta = 2.103), indicating the most substantial impact on the dependent variable. All predictors, except for Green Business Strategy (GBS), show statistically significant coefficients ($p < 0.05$), suggesting that Green Investment (GI), Risk Management (RM), Green HRM (GHR), and Green Product and Service (GPS) significantly contribute to predicting Efficiency (EY).

4.4.2 Effectiveness

Table 7

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.800[a]	.640	.635	.40721

a. Predictors: (Constant), GBS, GPS, GHR, GI, RM

Table 7 presents the model summary for the regression analysis predicting Effectiveness (ES). The model includes Green Business Strategy (GBS), Green Product and Service (GPS), Green HRM (GHR), Green Investment (GI), and Risk Management (RM) as predictors. The correlation between the observed and predicted values (R) is 0.800, indicating a strong positive linear relationship. The coefficient of determination (R Square) is 0.640, suggesting that approximately 64% of the variance in Effectiveness (ES) can be explained by the predictors. The adjusted R Square, considering the number of predictors and sample size, is 0.635. The standard error of the estimate, measuring the variability of the actual values around the regression line, is 0.40721.

Table 8

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	116.136	5	23.227	140.074	<.001[b]
	Residual	65.333	394	.166		
	Total	181.469	399			

a. Dependent variable: ES

b. Predictors: (Constant), GBS, GPS, GHR, GI, RM

Table 8 provides the analysis of variance (ANOVA) results for the regression model predicting Effectiveness (ES). The regression model is statistically significant ($p < 0.001$), with an F-statistic of 140.074. The sum of squares decomposition shows that the regression model explains a significant portion of the variance in the dependent variable (ES).

Table 9

Coefficients

Model		Unstandardized Coefficients		Standardized coefficients		
		B	Std. Error	beta	t	Sig.
1	(Constant)	1.232	.180		6.827	<.001
	GI	-.558	.072	-.592	-7.748	<.001
	RM	.136	.109	.109	1.249	.212
	GHR	.380	.064	.405	5.902	<.001
	GPS	1.257	.104	1.190	12.096	<.001
	GBS	-.619	.102	-.441	-6.077	<.001

a. Dependent variable: ES

Table 9 displays the coefficients of the predictors in the regression model. The constant term (intercept) is 1.232. The unstandardized coefficients represent the change in the dependent variable (ES) for a one-unit change in each predictor, holding other predictors constant. The standardized coefficients (Beta) provide a measure of the relative importance of each predictor. Green Product and Service (GPS) has the highest standardized coefficient (Beta = 1.190), indicating the most substantial impact on the dependent variable. Green Investment (GI), Green HRM (GHR), and Green Business Strategy (GBS) also have statistically significant coefficients ($p < 0.001$), suggesting their significant contributions to predicting Effectiveness (ES). However, Risk Management (RM) does not show a statistically significant contribution in this particular model.

4.4.3 Economy

Table 10

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.789ᵃ	.623	.618	.307702517826895

a. Predictors: (Constant), GBS, GPS, GHR, GI, RM

Table 10 provides the model summary for the regression analysis predicting Economy (EC). The model includes Green Business Strategy (GBS), Green Product and Service (GPS), Green HRM (GHR), Green Investment (GI), and Risk Management (RM) as predictors. The correlation between the observed and predicted values (R) is 0.789,

indicating a strong positive linear relationship. The coefficient of determination (R Square) is 0.623, suggesting that approximately 62.3% of the variance in Economy (EC) can be explained by the predictors. The adjusted R Square, considering the number of predictors and sample size, is 0.618. The standard error of the estimate, measuring the variability of the actual values around the regression line, is 0.3077.

Table 11

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61.623	5	12.325	130.169	<.001[b]
	Residual	37.304	394	.095		
	Total	98.927	399			

a. Dependent variable: EC

b. Predictors: (Constant), GBS, GPS, GHR, GI, RM

Table 11 presents the analysis of variance (ANOVA) results for the regression model predicting Economy (EC). The regression model is statistically significant ($p < 0.001$), with an F-statistic of 130.169. The sum of squares decomposition shows that the regression model explains a significant portion of the variance in the dependent variable (EC).

Table 12

Coefficients

Model		Unstandardized Coefficients		Standardized coefficients		
		B	Std. Error	beta	t	Sig.
1	(Constant)	.542	.136		3.974	<.001
	GI	.580	.054	.834	10.669	<.001
	RM	.276	.082	.300	3.356	<.001
	GHR	.047	.049	.068	.973	.331
	GPS	-.649	.079	-.831	-8.256	<.001
	GBS	.648	.077	.626	8.429	<.001

a. Dependent variable: EC

Table 12 displays the coefficients of the predictors in the regression model. The constant term (intercept) is 0.542. The unstandardized coefficients represent the change in the dependent variable (EC) for a one-unit change in each predictor,

holding other predictors constant. The standardized coefficients (Beta) provide a measure of the relative importance of each predictor. Green Investment (GI) and Green Product and Service (GPS) have the highest standardized coefficients (Beta = 0.834 and -0.831, respectively), indicating substantial impacts on the dependent variable. Risk Management (RM) and Green Business Strategy (GBS) also have statistically significant coefficients ($p < 0.001$), suggesting their significant contributions to predicting Economy (EC). Green HRM (GHR) does not show a statistically significant contribution in this particular model.

4.5 Summary of the Result

Table 13

Coefficients

	EY	ES	EC
GI	Significant	Significant	Significant
RM	Significant	Significant	Significant
GHR	Significant	Significant	Not Significant
GPS	Significant	Significant	Significant
GBS	Significant	Significant	Significant

4.6 Discussion

The analysis of commercial banks' green banking practices based on key indicators reveals a generally positive commitment to sustainability. Across dimensions such as green investment, risk management, human resource management (HRM), product and service offerings, and overall business strategy, the banks exhibit moderate to high levels of engagement. Notably, green HRM practices show the highest variability among banks, indicating diverse approaches to integrating environmentally conscious human resource policies. Conversely, green business strategy displays lower variability, suggesting a more consistent industry-wide approach. These findings underscore a commendable industry-wide effort to embrace environmentally friendly practices, although further qualitative assessments and benchmark comparisons are necessary to ascertain the depth and effectiveness of these initiatives in promoting sustainable banking practices. Chen (2022) and Garaus et al. (2019) observed a positive green HRM practices, which is similar to the findings of the Nepalese Green Banking Practice. Zhang (2022) and Harsono et al. (2019) found

positive effects of green investment and green business strategy as a green banking practice, paralleling the Nepalese banks' focus on these areas. Hossain et al. (2021) and Herawati and Kusumastuti (2019) also found green loans as a green banking practices of the banks, corroborating the Nepalese banks' green investment practices.

The results of the regression analysis reveal significant relationships between Green Investment (GI), Risk Management (RM), Green HRM (GHR), Green Product and Service (GPS), Green Business Strategy (GBS), and the three key dimensions: Efficiency (EY), Effectiveness (ES), and Economy (EC). Green Investment, Risk Management, Green HRM, Green Product and Service, and Green Business Strategy all exhibit statistically significant impacts on Efficiency, Effectiveness, and Economy. These findings suggest that a comprehensive integration of these green business factors is essential for organizations aiming to enhance their operational efficiency, overall effectiveness, and contribute positively to the economy. Notably, Green HRM is identified as not significantly influencing the economy, implying that other factors might be more pertinent in affecting economic outcomes. Overall, the results emphasize the multifaceted and interconnected nature of green business strategies, reinforcing the importance of a holistic approach for sustainable and impactful organizational performance. In line with Chen (2022), the present study identifies significant positive effects of Green Investment (GI), Risk Management (RM), Green HRM (GHR), Green Product and Service (GPS), and Green Business Strategy (GBS) on Efficiency (EY), Effectiveness (ES), and Economy (EC). These findings align with the works of authors such as Zhang (2022), Hossain et al. (2021), Fawad and Bukhari (2019), Garaus et al. (2019), Harsono et al. (2019), and others who have highlighted the positive impact of various green banking practices on financial performance metrics like Return On Assets (ROA) and Return On Equity (ROE). However, discrepancies arise in specific relationships, with notable contrasts observed in the impact of Green HRM on the economy compared to Chen (2022) and the varying effects of Green Business Strategy on Effectiveness.

CHAPTER V
SUMMARY AND CONCLUSION

This chapter provides a summary of the entire study and highlights the major findings of the study. In addition, major conclusions are discussed in a separate section of this chapter which is followed by the recommendation based on the study findings regarding the relationship between green banking practices and the perceived financial performance of Nepalese commercial banks. Finally, the chapter ends with a short paragraph on the scopeof future research in a similar area.

5.1 Summary

Green banking practice is one of the key indicators to get a competitive advantage in the banking industry. The main objective of the study is to identify which Nepalese commercial banks are involved in green banking activities and to also to assess the impact of green banking practices on their the perceived financial performances. Another specific purpose of this study is to examine the relationship of Green Investment, Risk Management, Green Human Resources, Green Products and Services, and Green Business Strategy with the perceived financial performance of Nepalese commercial banks.

The study is based on a primary source of data. The primary source of data has been used to assess the opinion of respondents regarding the green banking performance of the commercial bank and the perceived financial performance. The questionnaire survey has been conducted to know the opinions of employees regarding the impact of green banking practices on the perceived financial performance of Nepalese commercial banks. A set of questionnaires was prepared and distributed to the employee of sample banks. The questions were designed to get the view, perceptions, and related information from the respondents. The respondents represent employees of 13 commercial banks in Nepal and atotal of 400 responses were collected.

Descriptive statistics, correlation coefficient, and step-wise regression method has been applied to estimate the relationship between perceived financial performance as a dependent variable with green investment, risk management, green human resource, green

product and services, and green business strategy as independent variables. The collected data has been processed with the use of the SPSS statistical package. Based on the analysisof data, the major findings of the study are summarized as follows:

- In the study, among 400 respondents the majority of the respondents (52 percent)were males and the remaining (48 percent) were females.

- The majority of the respondents (97.5 percent) were under the age group 21 to 40 years, and the remaining (2.5 percent) were of the age group less than 20 years

- Concerning education level, the majority of the respondents (81 percent) have Master's level qualifications, (18.8 percent) have Bachelor's degrees whereas the rest (0.2 percent) have Intermediate.

- In terms of designation, the majority of the respondents (89.2 percent) are Assistants, followed by officers (10 percent), Managers (0.5 percent), and Clerk at (0.3 percent) each.

- In terms of the Years of Employment, the majority of respondents have less than 5years with 59.7 percent, followed by 6 to 10 years with 37.2 percent, 11 to 15 years 1.3 percent and above 15 years with 1.8 percent.

- The weighted average mean scale for Green Investment, Risk Management, Green Human Resources, Green Products and Services, and Green Business Strategy are3.122, 3.237, 3.434, 3.295, and 3.228 respectively which indicates that Nepalese commercial banks are moderately engaged in green banking activities.

- The weighted average mean scale for Efficiency, Effectiveness, and Economy are 3.45, 3.3837, and 3.366 respectively. It indicates that efficiency, effectiveness, and economy all have moderate to a high level of positive influence over the perceived financial performance of Nepalese commercial banks.

- The correlation reveals that all Green Banking activities taken for the study (Green Investment, Risk Management, Green Human Resources, Green Products and Services, and Green Business Strategies) are positively correlated with Perceived Financial Performance. It indicates that as the level of Green Banking practices ofNepalese commercial banks increases, there is a strong tendency for their PerceivedFinancial Performance to also increase.

- For the beta coefficient value, Green product and service has the highest dominant influence with a beta of 2.103, followed by Green Human Resource with a beta of 0.254, Green Business Strategies and Green investment with a beta of 0.110 each, and Risk Management with a beta of -0.923.

- The regression result reveals that there is a positive and significant impact of Green Investment, Green Human Resources, Green Products and Services, and Green Business Strategies on Perceived Financial Performance but Risk Management has a negative and insignificant impact on Perceived Financial Performance. It indicated that banks need to be more concerned about Risk Management activities to increase the financial performance of commercial banks.

5.2 Conclusion

Green banking is a crucial step towards ensuring the long-term sustainability of our planet. Banks have a critical role to play in promoting environmentally responsible loans and investments and compelling businesses to invest in environmental management. The banking industry is increasingly recognizing the importance of environmental challenges and the need to be accountable for the negative environmental consequences of the industries they finance. By exclusively providing loans to environmentally responsible groups and incorporating green operations within their internal functions, banks can contribute to improving the overall environment, the quality of life, and the efficiency of using materials and energy. Ultimately, green banking is not just good for the environment, but it is also a sound business strategy that can lead to long-term financial stability and prosperity.

The study shows that Green Investment, Green Human Resources, Green Products and Services, and Green Business Strategy have a significant impact on Perceived Financial Performance whereas, Risk Management does not have a significant impact on Perceived Financial Performance. However, the study also shows that Risk Management, Green Investment, Green Human Resources, Green Products and Services, and Green Business Strategy have positive relations with the financial performance of Commercial Banks. The study concludes that better practice of green banking activities in the banking system, better the overall impact on the financial performance of Nepalese commercial banks.

5.3 Implication

This study provides various implications, which are listed below:

- Conduct a thorough assessment of the bank's current sustainability practices, including energy use, waste management, and resource consumption. Identify areas where improvements can be made and set goals for reducing the bank's environmental impact.

- Invest in green technology such as renewable energy, energy-efficient buildings, and smart technology to reduce energy consumption and carbon emissions.

- Train employees on green practices and sustainability initiatives. Educate them on the benefits of green practices and encourage them to adopt sustainable practices in their work.

- Introduce a range of green products and services, such as loans for renewable energy projects, to attract environmentally conscious customers.

- Partner with stakeholders such as customers, suppliers, and regulators to promote sustainability and encourage the adoption of green practices across the industry.

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