CHAPTER - I

INTRODUCTION

1.1 Background of the study

The disastrous impact of recent storms, floods, droughts and excessive heat that many people have experienced around the world, motivate us to think seriously about global warming and its impact and to do whatever we can to address this problem. Governments, enterprises, and people, all have roles to play in combating global warming and building a sustainable environment. A good thing is that there is now greater awareness and a growing commitment to address environmental problems we face. An action to arrest environmental degradation would significantly affect not only current but also future generations and our further progress. So, a proactive multipronged action is necessary by all the industry and business sectors, regulatory agencies and the individuals (IDRBT, 2013).

There is no one distinct definition of green banking; however, the following will try to bring the meaning of green banking. It means promoting environmentally-friendly practices and reducing carbon footprints from banking activities. There are many differences compared to normal banking, Green Banks give more weight to environmental factors, their aim is to provide good environmental and social business practice, they check all the factors before lending a loan, whether the project is environmental friendly and has any implications in the future, and you receive loan only when you follow all the environmental safety standards (Schultz, 2010).

Green banking is a stream of banking in which environmentalism is adopted as the operational base of banking activities like a conscious being (though the registered banking organization is regarded as artificial being) in a society. It persuades customers taking green projects and encourages the projects through lending along with putting in practice of conservation activities-using solar or renewable energy-within the bank premises. A study defines green banking as operational improvements, technology and changing client habits in the banking business as well as promotion of environment-friendly practices and reduction of the carbon footprint from banking activities. Green banking avoids as much paperwork as possible and rely on online/electronic transactions for processing so that we get green credit cards and green mortgages. Less

paperwork means less cutting of trees (Singh and Singh, 2012). Green banking is also called ethical banking or a sustainable banking which is controlled by the same authorities, but with an additional agenda toward taking care of the earth's environment (Jha and Bhome, 2013).

Green Banking is a new way of showing the banking business through considering the clean environmental issue as well as corporate social responsibility (Islam & Das, 2013). Green banking is comparatively new development in the financial world and the activities of the banks are associated with environmental protection and sustainable development services (Trehan, 2015). Green Banking has a role to safeguard the planet from unusual weather patterns, rising greenhouse gas, and declining air quality, with the aim of ensuring economic growth which is sustainable (Islam & Kamruzzaman, 2015). Uddin and Ahmmed (2018) stated green banking plays caring role for sustainable development in overcoming the institutional obstacles and market challenges, in the way to allocating the investment to the green projects. Banks should go green and play a pro-active role to take environmental and ecological aspects as a part of their lending principle (Sahoo and Nayak, 2007). Nath, Nayak and Goel (2014) examined green banking practices that are being followed in Indian banking system.

The green banking initiatives in Bangladesh involves both the in-house which indicates the management of energy, prevention of wastage of energy and paper within the banking premises and other than in-house which is related with green banking financing and making the customers and stakeholders aware of environmental issues (Afroz, 2017). Green banking has many advantages, they are: green banking avoids paper work and all transactions are done through online banking, creating awareness to business people about environmental and social responsibility enabling them to do an environmental friendly business practice and banks follow environmental standards for lending, which is really a good idea and it will make business owners to change their business to environmental friendly which is good for the future generations (Ragupathi and Sujatha, 2015). Green practices of banks are the efforts of the banking sector to keep the environment green and to minimize greenhouse effects through rationalizing their strategies, policy, decisions and activities (Deka, 2015).

1.2 Statement of the problems and research questions

The concept of green banking is new and emerging concept in context of Nepal. As far as green banking in Nepal is concerned, the banks in Nepal were not found very active to promote green banking initiatives but analyzing the recent context, some of the banks have started providing loans for bicycle and solar energy like Civil Bank, Nepal Investment Bank and Laxmi Bank (Mehta and Sharma, 2016). According to survey conducted by Mehta & Sharma (2016), Laxmi bank is the first bank in Nepal to support green banking concept.

According to CEO of Laxmi Bank, going green has become conscious practice and belief adopted by every single employee at Laxmi Bank, they are promoting bicycles as emission-free means of transportation through an array of activities, offering attractive loan packages for environment-friendly products and saving products that reward the customers for eco-friendly practices are some of the bank's activities to reinforce our focus on the environment.

As part of the role to be played by the corporate sector, banks and financial institutions should embrace green banking by adopting process and strategies that promote environment-friendly practices to help in reducing carbon emission. Risal and Joshi (2018) stated that green banking helps in reducing internal carbon footprint as well as external carbon emission. Banks have been using lighting, air conditioning, electronic equipment, IT, high paper wastage in massive proportion. The resultant internal carbon footprint can be reduced through the use of renewable energy, automation and other measures. On the other hand, banks can reduce external carbon emission by financing projects and companies that are working for pollution reduction and adopting green technologies. Arumugam and Chirute (2019) stated that providing loans to firms that have concern for environment would ensure proper utilization of natural resources.

In context of Nepal, banks should provide preference to green assets like homes equipped with solar energy, rain water harvesting facility, and properties with better environmental surroundings for collaterals and secondary priority should be given to polluting factories, buildings that emitted harmful waste in the environment. According to CEO of Nabil Bank, Nabil Bank have taken the initiation of promoting green banking and green innovation initiative with the objective to foster and facilitate innovative ideas of Nepalese youth regarding sustainable business that also can add value to the environment.

Thus, this study has tried to answer following research questions:

- i. What are the green banking practices of commercial banks in Nepal?
- ii. Is there any relationship between green banking and perceived performance of commercial banks in Nepal?
- iii. Is there any effect of green banking on perceived performance of commercial banks in Nepal?

1.3 Purposes of the study

The specific purposes of the study are given below:

- i. To identify the green banking practices of commercial banks in Nepal.
- ii. To explore the relationship between green banking practices and perceived performance of commercial banks in Nepal.
- To examine the impact of green banking on perceived performance of commercial banks in Nepal.

1.4 Significance of the study

This research will help to identify the green banking practices of Nepalese Commercial banks and its impact to the perceive financial performance of those banks through the analysis of different kind of green banking practices and it will help to identify the which of the green banking method is more important to increase the financial sustainability of the banks. The significance of a study may include the meaning of the research work to personally and should include how your research benefits or impacts others in part or whole. It discusses what people or groups of people might benefit from reading of the research.

- First, the study will be useful for Nepalese commercial banks in order to see the impacts of Green banking practices in comparison with the perceive financial performance of banking system.
- ii. It helps in understanding what the green is banking and what actions should the banks take in order to benefits from the opportunities and how to overcome the challenges.

- iii. This study can be used for other researcher as a reference who wants to study further in this or related areas or to serve as a reading material for anyone who is interested.
- iv. This research will alert bankers from tomorrow's problems at today in order to get the intended green banking service can be said it is at infant stage in the country.
- v. It also helps to policy maker of banks related with green banking practices.

1.5 Limitations of the study

This research tries utmost care to cover most of the important sector however it is still subject to limitation. The main limitations of the study in terms of its scope, methods and assumptions are as follows:

- i. It does not include bank customers who do not use the current green banking which would help to compare the attitude of green banking users and nonusers towards green banking practice.
- ii. Most of the available data of previous research conducted may not explain specifically to the context of our country.
- iii. Due to the less awareness about green banking, bankers were not able to provide the clear view of what they perceived about green banking.
- iv. The study surveyed only six commercial banks of the Kathmandu valley so the result of the study cannot be generalized for overall scenario of banker's understanding about green banking in other places of Nepal.
- v. Data and information collected from the respondents are based on their opinions and knowledge which may be subject to bias.
- vi. Lack of sufficient literature review regarding this topic in the context of Nepal.
- vii. This research study only covers banking sector but ignores other areas of the businesses.

1.6 Chapter plan

The study has divided into five chapters. They are an introduction, literature review, research methodology, presentation and analysis of data and summary, conclusion and recommendations.

Chapter I: Introduction

This chapter deals with introduction which includes background of the study, statement of the problem, objectives of the study, significance of the study, limitation of the study and chapter plan.

Chapter II: Literature review

The second chapter presents review of previous related research done on e-banking and customer satisfaction, review of related books, journals, articles, previous unpublished master level dissertation and conceptual framework based on the literature review.

Chapter III: Research methodology

The third chapter explains the research methodology used in the study. It included research design, population and sampling, types and sources of data collection procedure, data analysis tools, techniques, reliability and validity.

Chapter IV: Results

This chapter includes data presentation, data analysis and major findings of the study.

Chapter V: Conclusions

The last chapter of the report deals with the discussions, conclusion and implications. It also offers several avenues for future research. Reference and appendixes have also been incorporated at the end of the study.

CHAPTER - II

REVIEW OF LITERATURE

2.1 Conceptual review of green banking practices

Jain (2017) green banking is also called as an ethical bank or a sustainable bank. Green practices of banks popularly known as green banking refers to the environment-friendly initiatives taken by the banks to reduce the carbon footprint from their day to day banking activities and also to minimize the external carbon emission. Likewise, sustainable bank is a bank concerned with the social and environmental impacts of its investments and loans. It refers to the initiative taken by banks to encourage environment friendly investments, to give lending priority to those industries which have already turned green or are trying to grow green and thereby help to restore the natural environment.

"Green" in green banking principally indicates bank's environmental accountability and environmental performances in business operation. Green banking is a kind of banking conducted in selected area and technique that helps in reduction of internal carbon footprint and external carbon emissions (Bahl, 2012). According to Azam (2012), green banking means eco-friendly or environment friendly banking to stop environmental degradation to make this planet more habitable. Green banks are to use resources with responsibility, avoid waste and give priority to environment and society. Green banking helps the overall reduction of external carbon emission and internal carbon footprint. Banks can reduce their carbon footprints by adopting the following measures such as paper-less banking, energy consciousness, using mass transportation, green building, go online, save paper, use of solar and wind energy (Chaurasia, 2014).

Bhardwaj and Maholtra (2013) elucidated that green banking is an effort by the banks to make the industries grow green and in the process restores the natural environment.

2.2 Review of previous thesis

Sahoo and Nayak (2007) explored the green banking practices in India. The study is concentred on achieving the sustainable development by allowing markets to work within the designed framework. The study concerned on application of green banking for preventing the quality of assets and also for sustainable development. They further

observed that banks should go green in order to make environmental and ecological aspects in balance. This study highlights the importance of green banking, sites international experiences and also explore the important lessons for sustainable banking and development in India. It is found that if the concept of green banking would implemented it would impact positively in environmental issues. The study found that none of the banks are adopting the concept of green banking because of time issue. They explained that the banking and financial sector should be made to work for sustainable development. It is found that some banks are introducing green bank loans and products such as investing in environmental projects i.e. recycling, farming, technology, waste etc., providing options for customers to invest in environmentally friendly banking products and investing in resources that combine ecological concerns and social issue. The study concludes that banks should play a significant role to take environmental and ecological aspects as part of lending principle.

Polasik (2008) analyzed influencing aspects that impact on the decision for the adoption of internet banking in Poland. The study is based on primary data which has been collected by taking interview with 3519 internet users taken as respondents. Interactive questionnaire was used to collect data for the study. He observed the different variables that impact on taking the decision to adopt the internet banking such as internet experience and connection mode, perceived security, exposure to marketing campaigns, experience with other banking products, and socio-demographic characteristics. The study found that high level of perceived security in cyberspace is important to foster the adoption of online banking. Moreover, those customers who are used to with electronic distribution channels like mobile banking or payments cards shows high activeness to use an internet account. The study addressed that Polish customers have a similar kind of preference to those observed in more developed countries but still certain problems in further advancement in online banking do exist. The study identifies presence of infrastructural barriers coupled with lower income per capita and lower saturation with basic banking services has been taken as a restriction. The study concludes that though customer trust is hard to gain and easy to lose, the internet banking providers should make an effort to maintain a good record by maintaining the security threats in effective manner.

Rakic and Mitic (2010) showed the potential of green finances, and presented the most important green financial products, in their research article. Special emphasis was put on green products of retail banking, such as green cards, green car loans, green mortgages, etc. These products strengthen environmental causes, such as high fuel efficiency, clean energy and eco-friendly activities. This article also showed the positive impact both on the side of the provider of the products, given that the demand for green products is constantly increasing, and for the users, as it provides products with lower costs.

Verma, (2012), in his research paper, analyzed the evolution of green banking concepts in Indian Banking and its developments in Indian banks. Indian banks are now becoming more conscious on CSR, and one of the main CSR is green banking. Banks are the real catalysts, as they have a big hand in the development of the economy so that Indian banks can play big role in the implementation of green banking in India. The study is divided into two parts; one studied the growth of green banking among banks, and other studied the awareness about the activities done by selected banks at Jaipur, 10th largest banking centre in India. The study concluded that only a few of Indian banks have adopted green banking and financed some of green banking based projects. There is negligible awareness of green banking among bank staff and customer. Along with the increase of their banking business, banks can enhance their overall image and can serve for the community and earth.

Ahmad et al. (2013) analyzed the aspects in adoption of green banking in commercial banks of Bangladesh. This study examined the developing banking strategies which ensure the sustainable development of economy. The study has been conducted in branches of the banks in Dhaka city by taking 300 bankers as a respondent who work as an officer and those who are in upper level position. Structured questionnaire has been used to collect the data for the survey and likert scaling technique was used to analyze the collected data. The study has identified the aspects behind adoption of green banking policy. It is found that 6 out of 18 components are retained on the basis of eigenvalue and those six components contains 65% of influential power in the adoption of green banking in commercial banks of Dhaka. The study identified that most of the commercials banks in Dhaka adopt green banking practices to build their brand image in the market as the concept of green banking concern with environment

issues. They concluded that commercial banks in Bangladesh are practicing green banking policy to be more responsible corporate citizen. The study addressed that there are multiple aspects that influence in adopting the green banking in banks. They also explained the advantage of adopting green banking policy in sustainable economic development.

Islam and Das (2013) examined the practices of green banking in Bangladesh. The study focus on the online banking, mobile banking green financing and guidelines for green banking practices. This study based on secondary data and total ten commercial banks of Bangladesh has been selected on the basis of CAMEL'S rating and Risk Based Capital Adequacy (RBCA) measurement that are representing green banking practices. Bangladesh bank also highlights on the major environmental issue for launching new branches. The study found that banks has allocated Tk. 525 crore for green banking and Tk. 505 crore for green financing from their budget. It is found that 40 out of 47 private and public commercial banks has establishes green banking unit and 41 commercial banks has formulated the policy of green banking. The study found that 90.73% of the total branches of private commercial banks have been practicing online banking. The study observed that 23 commercial banks have a license to provide mobile financial services out of which 14 banks have already started working their operations. The study concludes that green banking practices in Bangladesh are not in sufficient level as green banking plays an important role to protect the environment. They recommend that government should encourage the public about practicing green banking.

Yadav and Pathak (2013) analyzed the role of green banking for environmental sustainability in the private and public sector banks in India. This study aim to identify the different green banking approaches adopted by private and public sector banks in India. The study followed the case study method to analyze the data. The data for the study were collected from- secondary method such as company official website, annual reports, sustainability reports and articles. The banks for the study were selected on the basis of their net earnings per year. This study further attempts to categorize the phases of green marketing initiatives of the banks on their green banking initiatives. Similarly, the sample includes top performing banks of the public sector and private sector. The findings of the study shows that Indian banking sector

have understood the importance of environmental protection and also started taking various initiatives of green banking approach. Likewise, the result of this study reveals that the public sector banks have taken more green banking initiatives than private sector banks except ICICI bank. The study concludes that the banking sector is getting modernized and new services like net banking, mobile banking are being prioritized. They also recommend some managerial implications that banks should focus on creating awareness among society and practice more environmentally friendly services.

Jha and Bhome (2013) did the empirical study on the steps that can be taken for going green in the banking sector and to check the awareness among bank employees, associates and the general public about green banking concept. They did this study by collecting data from 12 bank managers, 50 bank employees and 50 general customers. The authors were of the opinion that online banking, green loans, power saving equipment's, green credit card, use of solar and wind energy and mobile banking were some of the strategies that should be followed for going green.

Sharma et al. (2014) identified the customer's awareness on green banking initiatives in selected public and private sector banks in Mumbai. The purpose of this study is to identify the opinion and level of awareness of bank employees and customers regarding green banking concept in public and private sector banks. The study is based on primary data in which the respondents having sound educational background were targeted. Total 100 respondents were considered for the study. All the bank considered for the study were top rated banks so these banks are chosen from public and private banking sector. The findings of the study shows that out of total respondents, 77 % were using green banking products but were not aware of the terminology of Green banking and remaining 23 % were quite aware of the green banking services provided by their bank. Similarly, the study also reveals that green banking initiatives like communication through press, bank environmental policy, concession on energy savings, solar ATMs, green CDs etc. are still not introduced by the respective banks according to the respondents. Furthermore, they identified some of the obstacles experienced by respondents regarding green banking practices they are: data security and privacy, lack of education, technical issues, traditional approach and lack of infrastructure. They conclude that India should take some strict steps to harness these

banks and financial institution to adopt the principle equator guideline so that they can contribute in the protection of environment in future and practice green banking initiatives.

Ullah (2014) explained the prospects, progress and difficulties of green banking practices in Bangladesh. He analysed the policies and strategies of green banking which is concerned with environmental issues. Bangladesh bank has initiate a numbers of green banking practices after considering the importance of green banking. The study aimed to assess the best practices of Bangladesh bank in eco-friendly banking system. The survey has been conducted in twenty commercial banks. The data has been collected through face-to-face interview, telephone and some are also collected from email. Unstructured questionnaire was used and different descriptive statistical tools, charts, tables have been used to analyse the collected data. The study found that 47 banks are formulating the environmental policies and it shows that BB's initiatives have an incredible change in understanding and approach in banking communities. In context to paperless banking, all the branches of FCBs are delivering online banking facilities. 26 banks out of 44 banks have internet and 24 banks have mobile banking services. The study observed that most of the banks are taking initiation to introduce internal environment management. He also addressed that banks are also doing environmental risk rating and it has been rated 4394 and 12088 projects in the year 2011 and 2012 and the finance amount of numbers of rated projects has been increased by 158.75% and 159.69% respectively. He concludes that however there are many restriction the overall green banking implementation is quite satisfactory.

Deka (2015) examined the green banking practices by using environmental strategies of banks. They analysed that banks are the important stakeholders which can be a better contribution towards environment in adopting green banking practices. The survey has conducted in Assam with 486 customers of State Bank of India (SBI) as respondents. Structured questionnaire was used for the survey. Descriptive analysis techniques have been applied. The study found that 50% of the respondents are not aware of the concept of green banking in the banks. It is found that most of the respondents are practicing green banking but they are using it unknowingly. The study observed that only 19.5% are using online banking facility and most of the respondents did not feel secured using online banking facility. After examining the

user of mobile banking in SBI, only 20% from the total respondents are using mobile banking services. The study also analyzed the impacts of different green banking practices on the environment in which it is found that 80.7% of respondents perceive that adoption of green banking practices contribute in environment as it saves the paper and energy. Rest of them does not feel green banking as environment friendly. The study concludes that adoption of green banking practices has a positive impact on the environment and it also positively impact on sustainability as the practice of green banking saves paper, energy, fuel, water, time and cost. They also identified that the use of green banking helps to reduce the workload of the bankers in the bank.

Vijai and Natarajan (2015) have explained that customer's awareness about green banking products in certain commercial banking in India in Cuddalore district. Sample was taken in two stage, in first stage the choose top five Indian commercial bank and in second stage they collect they choose semi-urban 18 and urban 7 branch, out of 5 selected commercial banks green banking is recent concept. In selected branch they choose 15 saving bank accountholders and 10 current accountholders. In this way they collect data from 625 customers as a sample. To collect primary data multi- stage sampling technique was adopted and secondary data were collected through journals, magazines, government's reports, RBI bulletin, books and other various sources. Similarly, data were analyzed by the help of t-test, one-way variance, coefficient of variance and multiple regressions. The result shows that there is no significant relationship among the respondent with gender, age, education status, annual income, occupation and types of accounts about green banking. However, it also shows that there is significant relationship among awareness level with locations, banks and types of banks about green banking. The moderate correlation shows that awareness level and green banking product and selected personal variable has positively correlated (0.756) and R square indicate that 57.6% variation among awareness level and other personal variables. It also shows that 42.08% respondent were not awareness about green banking, where mean awareness level 3.20 about use of energy and 3.17 about online bill payments.

Masukujjaman et al. (2015) analyzed the perception of bankers on green banking. They examine the concept of green banking, its advantages, difficulties and relation with Islamic banks. The survey has conducted in 48 Islamic banks in Dhaka, Bangladesh.

They used simple judgmental sampling technique. Structured questionnaire was used to take face-to-face interview for collecting the data. They observed that most of the bankers perceived green banking as an environmental banking and they also believed that it is socially responsible banking and ethical banking. They study also find out the benefit of green banking as its first benefit is to protect environment and second is to reduce the resource wastage. Going green also reduce the stationary cost and increase operating profit. Going green is also concerned with many social activities like corporate social responsibility. They also identify some of the difficulties in adopting green banking initiatives. The top two difficulties in adopting green banking are high adoption cost and hampering the privacy of customers. The study concludes that bankers believed that green banking is related with environmental banking as it cares about environmental issues. In context to adopting green banking initiative, the major complexity is identified as high adoption cost.

Rauth and Malhotra (2015) this study on Green Banking Strategies: Sustainability through Corporate Entrepreneurship. The main objective has to analysis the various models of green banking practices adopted by Indian companies to grow. The research methodology is based on case study method. The findings of the research study show that the banks which are adopting the green banking practices influence the performance of the organization.

Faruque et al. (2016) analyzed the green banking and its practices and potential to grow in Bangladesh. This study estimates the green banking practices in Bangladesh. The study aimed to create awareness of green banking among businesses and public people. The study is based on secondary data collected from different magazines, newspapers, internet and websites of commercial banks. The data has been analyzed in the perspective of progress of green banking activities. The study found that most of the banks focused on mobile and internet banking. Banks are facilitating 3.91% and 1.42% of total number of accounts in mobile banking and internet banking. The study 27 also found that some of the banks are introducing the use of solar energy in their respective branches in which 99 branches of 18 banks have already installed solar power panels. They observed that 212 branches and 150 SME units and ATM boots are powered by solar energy and 3226 branches are facilitating the online coverage. The study concludes that Bangladesh is one of the most climate changing countries in

the world. From the analysis, it can be found that the use of green banking in Bangladesh is not in adequate. So, they also recommend government to utilize the use of green banking for reduce the environmental concerns.

Tu and Dung (2016) observed the factor that affect the green banking practices in Vietnamese banks. This study focus on identifying those factors which affect the practices of green banking and role of green banking for sustainable development of economy of Vietnam. The study used questionnaire method after conducting preliminary interview with several banks in Hanoi. Those banks were selected which have large revenues because green loans need high initial investment costs. The questionnaire has been distributed to 32 selected banks in Vietnam and 329 respondents were received from those selected banks. The SPSS has been used to analyze the collected data. The study found that there are five variables including understanding the definitions of green banking, the current activities of green banking, the barriers in adopting the green banking practices, benefits of developing green banking and focused business sectors of green banking which emphasizes the willingness to adopt green banking in Vietnamese banks. It is found that these five factor have positive relationships with the willingness to adopt green banking practices. The researchers concluded their study as the awareness level and actual implementation of the model in commercial banks of Vietnam are comparatively low. The researchers suggested commercials banks to promote the awareness green banking practices in the banks of Vietnam.

Ganesan and Bhuvaneswari (2016) have explained about the customer perception towards green banking in India. In the term of sample 100 customers were taken through convenience sampling method. Data were collected through both primary and secondary method, where primary data were collected through structure questionnaire method and close ended multiple choice methods was used and 26 multiple choice question were asked, secondary data were collected through various research journals, books, research papers and banks websites. Data were analyzed by the help of Chisquare analysis (used to identify association between any two variables), one-way ANOVA (find out each variables and ascertain the association between dependent and independent variable) and frequency table. This study analyzed that effectively and efficiently use of IT and physical infrastructure to reduce the impact of environment and effectively development of environment. It also shows that banking is never a pollution industry, but now in banking sector increasing the carbon footprint due to their massive use of energy. Similarly, this study focused that awareness of major green banking services to its customers and shows the use of green banking facilities are directly impacted by educational qualification. It shows that the age group 25-35 were used all the facilities which are provided by green banking and shows that facility of green banking has no problem.

Shampa and Jobaid (2017) have explained about the various factors that influence customers about green banking practices in Bangladesh. Simple random sampling technique was used to collect sample and the total sample was 246 respondents were finalized. Five (5) point Likert scale and 23 dimension are identified and summarized into five factors to analyzed data and found that customer needs and information. Multiple interdependence technique was used to analyze the data and principle component analysis (PCA) was used to determine minimum factors which responsible with maximum amount of variance. Result shows that customer's expectations toward green banking were already disclosed in quantitative part and other factors will help critical decision. Similarly, it also shows that customer's expectation was influenced by "level of information and customer needs" with maximum variance 16.04%, where website information affects 0.714 and 24/7 service affect 0.755. The second factor was "ethics and high yield saving", which maintain high degree ethical standard was 0.75, lower maintenance fee was 0.737, better deposit rate was 0.523 and lower transaction cost was 0.535. The third factor was energy efficiency which galvanizes banks to utilize available resource and renewable energy in effective ways. The forth factor was product benefits which concern eco-friendly product, like green mortgages, green home equity, and various other loans. The last factor was integration and personalization which affect green banking approach and customer marketing.

Koiry et al. (2017) have explained about the customer's awareness and practices about green banking in Sylhet district of Bangladesh. Random sampling and convenience sampling technique were used to collect data and 10 customers were selected from each bank and total 56 banks were selected. Data were analyzed by the help of t-calculation, F-test and Cronbach Alpha. The result shows that customers are important part of banks, where higher respondent were 30-64 age groups, highly educated,

professional people, meal customers and green banking knowledgeable people. Similarly, it also shows that, they used recycled papers, use debit and credit card to withdraw money, natural gas used vehicle were going to bank, used electronic system, always used ATM, communication has been occurred by the help of audio and video conference, SMS banking system and various other terms were used for green banking. The reliability of using post-hoc test, value of Cronbach's Alpha was 0.859 that is higher than minimum desirable limit 0.70, where F-test value was 37.128, which was significant at 1%. This study also shows that green banking can be treated as a part of banking industry to protect environment and positive views and good knowledge about the green banking practice is very vital for the customer. Customers were aware about SMS facility of the banking, which is important part of the green banking.

Iqbal et al. (2017) have explored about the customer's perception about green banking in Bangladesh. Nowadays, banks have been providing eco-friendly financial services to adopt the concept of green banking. This is the concept, which minimizes the impact of environmental in their business activities. Green banking acts as a competitive advantage for banks to offer customers with the help of new ways to deliver financial services. Adaptation of these service helps to experiences and quality of service delivery toward customer's perceptions. This study also showed that service qualities and other underlying factors directly affect the customer's behavioural about green banking. This analysis showed that various factors of green banking like reliability, responsiveness, empathy, privacy, and information quality has positive effect on performance expectancy, but other factors like performance expectancy, effort expectancy and facilitating conditions has also influence customer's behavioural intention. Similarly, this study also shows that electronic quality and use of technology is helps to builds the quality of green banking service. This study also shows that customers were very rational in this era and they only want those service which provide maximum utility and quality has positive effect the customers toward green banking. However, it also shows that improve the service quality that will also improve the customers performance of green banking.

Biswakarma (2017) has examined the green banking practices for understanding strategy convergence in banking sector in Nepal. This study follows the quantitative

approach toward descriptive and casual research design and as sample 350 employee were consider as a respondent. This study shows that banking industry is never consider the pollution industry, but nowadays carbon footprint is increasing day by days, that's direct effect to higher use of energy, high paper wastage, lack in green building and so on. To reduce the carbon bank should use the green banking technology and pollution reducing projects. Green banking concept is proactive and smart way of thinking of effective of spaceship earth. There were various factors related to green banking; green product/service, risk management, green investment, green banking strategy and green human resource management. The result shows that all dimension related to green banking have significant relationship with effectiveness of banking. Environmentally products that combine the social concern care about the renewable resource and focused green investment to fulfil annual targets, strategic plan and budget at relevant activities effectiveness of Nepalese banks. It also shows that Nepalese banking organization has huge potential of green banking practices. If these banks focus toward effectiveness, it would be beneficial for risk reduction and development of the nation.

Sharma (2017) examined the issues and challenges in adopting the green banking. Green banking aims to promote the environmental friendly practices and focus on reducing the cost of banking activities. In India, many banks has already started different green banking initiatives, these initiatives brought convenience to the customers and also helped banks in minimizing their cost of operations. The study aims to measure the awareness level of customers regarding green banking and identify the influencing factors affecting the adoption of green banking in selected banks of India. The study was conducted in the selected public and private banks of Jaipur, Rajasthan. There are 207 customers of those selected banks as a respondents. The study include 68.59% of male respondents and 31.41% of female respondents. This states that male respondents are actively using banking services that female respondents. Correlation analysis has been used in the study to measure the relationship between two different variables. It is found that the correlation between awareness towards green banking and perception towards green banking is 0.433 and the awareness towards green banking and issues of green banking is 0.557. After findings the correlation, it is proved that there is significant difference in issues and challenges related to green faced by private and public banks. Similarly, it is found that there is significant difference in awareness level among customers related to green banking in the selected private and public banks in India. The study concludes that there is a vital role of customers of private and public banks in making the concept of green banking successful.

Shaumya and Arulrajah (2017) conducted the research to identify the impact of green banking practices on bank's environmental performance. Recently, almost all the sector of world economy is facing a big challenge to deal with the environmental problems and their impact in daily operations of the business. Most of the banks are launching green banking initiatives in Sri Lanka. The study aims to measure the impact of green banking practices on bank's environmental performance. The survey was conducted by collecting primary data through self-administrated questionnaire. 155 employees were taken as a respondents of selected commercial banks in Batticaloa Region of Sri Lanka. The collected data were analyzed by using computer based statistical data analysis package, SPSS. The study found that the correlation between green banking and bank's environmental performance are positively strong which means the level of implementation of green banking has positive effect on the level of bank's environmental performance. It is found that the improvement of environmental performance of banks depends on the implementation of green banking practices. The individual dimension which have separately contributed in bank's environmental performance. Among these dimension, 55.2% have impact on bank's policy related practices, 2.3% impact on employee related practices, and 1.6% impact on bank's environmental performance. The study concludes that with the help of green banking practices, banks can improve their environmental performance.

Shayana et al. (2017) analyzed the complexities and prospects of green banking in coastal region of Karnataka, India. This study mainly focus on encouraging ecofriendly banking practices and reducing the use of paper from banking operations. The survey has conducted in coastal region of Karnataka by taking 100 respondents. The data are also collected from secondary source like books, articles, journals, newspapers and web browsing. From the study, it is found that consumer perceives green banking as a cashless banking which shows the misconception among customers. They addressed that 50% of respondents are not using internet banking facilities which means banks need to promote the internet banking facilities. They also observed that in analyzing the difficulties on adoption of green banking, 35% of customers are facing complexities under the limited scope for personal advice, 30% are facing problem in security and rest of them i.e. 30% and 10% are facing difficulties in transactions and lack of knowledge. The study identified that the banker find inconvenient in adopting the green banking and those problem can be evitable so it shows the support for green banking practices. They concludes that banks should made their short and long term objectives to promote green banking practices in proper way.

Mehedi et al. (2017) identified the perspectives of banker's regarding the indicators for adopting the green banking in commercial banks of Bangladesh. The study was conducted to know the perception of middle-level banker's towards adoption of concept of green banking. The respondents for the study has been selected from Shahjalal Islami Bank Limited for collecting the data. The data for the study have been collected through semi-structured questionnaire method and selected six scheduled commercial bank in Bangladesh. For the collection of data, sixty questionnaires were sent to the respondents through e-mail addresses, in which 36 questionnaires were received including proper answer and for the further analysis, only 30 questionnaires were selected. The 5 point likert scale were used to analyze the collected data. The researcher also used SPSS in order to analyze the factors. The researcher found some of the factors that influence in adopting the green banking, they are: governmental units, environmental pollution control policies, social group pressure and pressure from international organization. The study also addressed the most influencing power i.e. organizational pressure, environmental policy and institutional regulatory framework representing 23.327% out of 57.641% of total variance. The study concludes that the Bangladesh should take some corrective actions by adopting the concept of green banking. The banker's efforts of the adoption tools that the banks are currently practicing regarding adoption of green banking activities are delineated to credit cards, debit cards and other internet banking facilities.

Risal and Joshi (2018) explored the influence of green banking practices on environmental performance of banks in Kathmandu, Nepal. They conducted the survey by collecting the data from 189 commercial bankers from five major banks of Nepal, they are: Agricultural Development Bank Ltd (ADBL), NIC Asia Bank, Sanima Bank, Laxmi Bank and Siddhartha Bank. They used convenience sampling method to collect the data. The study applies cross-sectional qualitative approach with descriptive model. They used SPSS software to analyze the collected data of the study. The study found that there is positive relationship between green banking practices and bank's environment performance. They addressed the positive impact of practicing of green banking on bank's environmental performance in Nepal in which the variation in dependent variable is 6.8% with significance level at 0.016. Similarly, they also found that there is significant relationship between green policies, environmental trainings, energy efficient equipment's and bank's performance whereas there was not significant relationship with customer's related practices with bank's performance. After simple regression analysis, it is found that green loan and green project has not impact on environmental performance of banks. The study concludes that there is positive influence of green banking practices on bank's environmental performance in context of Nepal.

Uddin and Ahmmed (2018) analyzed the evidence from Bangladesh about Islamic banking and Green banking for the sustainable development. In Bangladesh, Green banking is an essential part of Islamic banking that focus on protecting the environmental issues. This study deal with the relationship between Green banking and Islamic banking which contribute to sustainable development. For this study, the data were collected from both primary and secondary source based on qualitative research. The primary data for the study were collected through questionnaire method, including the respondents like investors, executives and managers of Islamic banks in Bangladesh. There are altogether eight Islamic banks like Islami Bank Bangladesh Limited, Al-Arafa Islami Bank Limited, Social Islami Bank Limited, Exim Bank Limited, Shahjalal Islami Bank Limited, First Security Islami Bank Limited, ICB Islami Bank Limited, and Union Bank Limited. There are total sample of 126 respondents selected for interviewing from 42 branches of Islamic banks in Chittagong and Dhaka. The study found that most of the respondents agreed that they have connected with online banking and internet banking in their operations. The study also investigated the bankers are reconnoitring with the practice of components of green banking. Most of the banker's believed that green banking is the part of Islamic banking which promotes the environmental-friendly banking system. The study concludes that the Islamic banks should promote the awareness of green banking

practices among bankers and customers through seminars, workshops and training programs.

Deepa and Karpagam (2018) analyzed the customer's understanding on green banking in the selected private and public banks in Tirupur, India. This study aims to examine the nature of green banking practices that perceived by the customers. The survey has been conducted with the customers of banks in Tirupur city. The data for the study has been collected from primary and secondary source. Questionnaire has been used to collect primary data and secondary data has been collected through websites of different banks, articles and journals related to banking. The sample size 30 has been taken for the study. The study choose general public and sampling units based on convenience sampling. They used percentage analysis, henry garret ranking method and weighted average analysis as a statistical tools to analyse the collected data. The findings of the study shows that majority of the respondents (53%) have been linked with State Bank of India includes SBI groups and least is axis bank, bank of India, ICIC bank, Lakshmi Vilas bank. Similarly, the result indicates that most of the respondents are highly aware about usage of alternative energy whereas they are less aware about green banking specialties. Furthermore, they concludes that Reserve Bank of India (RBI) and Indian government should play a vital role and formulate a green policy guidelines and financial incentives for effective green banking practices.

Arymugam and Chirute (2018) have explored the factor determining the adoption of green banking among commercial banks in Malaysia. Green banking is about making the world better place without making any damage to the environment. The key objective of this study was to analyse the recent factors that affect the bankers to adopt green banking in the commercial banks in Malaysia. The study also aims to identify about the relationship between green banking and factors affecting its adoption. The survey was based on explanatory research design. Explanatory research design has been selected because it tries to determine whether a variable that has been chosen for the study are viable or not. The data were collected from primary source in which the sample of 160 employees, customers and stakeholders were taken randomly as a respondent from banks of Kuala Lumpur, Malaysia. Similarly, the tools used for analysing the collected data are Cronbach's alpha and Pearson chi-square. The findings of the study show that there is positive relationship among variables that are chosen

for the study. They conclude that most of the banks take green banking initiatives to encourage environmental-friendly investment. Furthermore, banks may apply ethics of sustainability and accountability to their business model, construction of strategy for products and services, operations, and their financing activities to become stronger.

Shantha (2019) in recent years, both academics and banking professionals are paying more attention towards the green banking concept due to its significant influence on environment management in banking context. In Sri Lanka, People's bank adapted to the green banking practices in 2015 with YES savings accounts as the first state sector bank which introduced the green banking products to their customers. Even though there are so many convenient facilities and benefits available with green banking in People's Bank since 2015, the problem is that there is a less customers' intention to use these green banking products. Thus this study aims to investigate factors affecting for the customers' intention to use green banking products in people's Bank. Data were collected by distributing a structured questionnaire among the sample of 371 customers in People's bank in Kandy branch. Customer's purchase intention has been considered as the dependent variable and green product awareness, green product trust, green product image, green benefits, green perceived value and green product security & privacy have been considered as independent variables. The results indicate that there are significant positive effects of green product awareness, green product benefits, green perceived value and green product privacy & security on the customer's intention while there are significant negative effect of green product image and green product trust on the customers' intention to use green banking products in People's bank.

S.No	Author	Title/Objectives	Methodology	Findings
1.	Santha (2019)	To investigate factors	Structured	The results
		affecting for the	Questionnaire	indicated that
		customers intention to		there are
		use green banking		significant
		products in people's		positive effects of
		Bank.		green product
				awareness, green
				product benefits,
				green perceived
				value and green
				product privacy &

 Table 2.1 Summary of previous studies

2	Arymugam and Chirute (2018)	To analyze the recent factors that affect the bankers to adopt green banking in the commercial banks in Malaysia.	Explanatory Research	security on the customer's intention. There is positive relationship among variables that are chosen for the study
3.	Deepa and Karpagam (2018)	To analyze the customer's understanding on green banking in the selected private and public banks in Tirupur, India.	Survey Research	This result indicated that most of the respondents are highly aware about usage of alternative energy whereas they are less aware about green banking specialties.
4.	Uddin and Ahmmed (2018)	To analyze the evidence from Bangladesh about Islamic banking and green banking for the sustainable development	Survey Research	The study concluded that the Islamic banks should promote the awareness of green banking practices among bankers and customers through seminars, workshops and training programs.
5.	Risal and Joshi (2018)	To explore the influence of green banking practices on environmental performance of banks in Kathmandu, Nepal	Cross- sectional Qualitative approach with Descriptive model.	The study concluded that there is positive influence of green banking practices on bank's environmental performance in context of Nepal.
6.	Mehedi et al. (2017)	To know the perception of middle- level banker's towards adoption of concept of green banking.	Survey Research	The study concluded that the Bangladesh should take some corrective actions by adopting the concept of green

				banking.
7.	Shaumya and Arulrajah (2017)	To identify the impact of green banking practices on bank's environmental performance.	Survey Research	The study concluded that with the help of green banking practices, banks can improve their environmental performance.
8.	Shayana et al. (2017)	To analyze the complexities and prospects of green banking in coastal region of Karnataka, India.	Survey Research	They concluded that banks should made their short and long term objectives to promote green banking practices in proper way.
9.	Biswakarma (2017)	To examine the green banking practices for understanding strategy convergence in banking sector in Nepal.	Descriptive and Casual Research	The result showed that all dimension related to green banking have significant relationship with effectiveness of banking.
10.	Sharma (2017)	The study aims to measure the awareness level of customers regarding green banking and identify the influencing factors affecting the adoption of green banking in selected banks of India.	Survey Research	The study concluded that there is a vital role of customers of private and public banks in making the concept of green banking successful.
11.	Iqbal et al. (2017)	To explore the customer's perception about green banking in Bangladesh.	Descriptive Research	This study also showed that service qualities and other underlying factors directly affect the customer's behavioral about green banking.
12.	Koiry et al.	To explain the	Descriptive	This study showed

	(2017)	customer's awareness and practices about green banking in Sylhet district of Bangladesh.	Research	that green banking can be treated as a part of banking industry to protect environment and positive views and good knowledge about the green banking practice is very vital for the customer.
13.	Shampa and Jobaid (2017)	To explain about the various factors that influence customer's about green banking practices in Bangladesh.	Research	Results showed that customer's expectations was influenced by level of information and customer needs, ethics and high yield saving, , product benefits concerning eco- friendly product and integration and personalization.
14.	Ganesan and Bhuvaneswari (2016)	To explain about the customer's perception towards green banking in India.	Descriptive Research	It also showed that banking is never a pollution industry, but now in banking sector increasing the carbon footprint due to their massive use of energy.
15.	Tu and Dung (2016)	To observe the factor that affect the green banking practices in Vietnamese banks.	Questionnaires	The researchers concluded their study as the awareness level and actual implementation of the model in commercial banks of Vietnam are comparatively low.
16.	Faruque et al. (2016)	To analyze the green banking and its practices and potential	Secondary Data	ThestudyconcludedthatBangladesh is one

17.	Masukujjaman et al. (2015)	to grow in Bangladesh. To analyze the perception of bankers on green banking its advantages, difficulties and relation with Islamic banks.	Structured Questionnaire	of the most climate changing countries in the world. The study concluded that bankers believed that green banking is related with environmental banking as it cares about environmental issues.
18.	Vijai and Natarajan (2015)	To explain that customer's awareness about green banking products in certain commercial banking in India in Cuddalore district.	Primary and Secondary	The result showed that there is no significant relationship among the respondent with gender, age, education status, annual income, occupation and types of accounts about green banking.
19.	Deka (2015)	To examine the green banking practices by using environmental strategies of banks.	Descriptive Research	The study concluded that adoption of green banking practices has a positive impact on the environment and it also positively impact on sustainability as the practice of green banking saves paper, energy, fuel, water, time and cost.
20.	Rauth and Malhotra (2015)	To analyze the various models of green banking practices adopted by Indian companies to grow.	Case Study Method	The findings of the research study showed that the banks which are

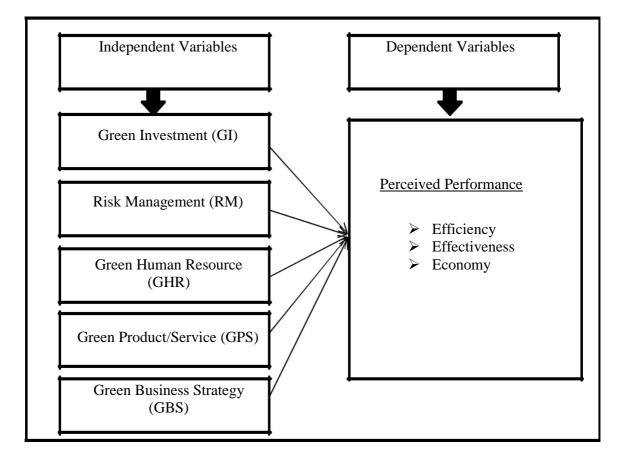
				adapting the areas
				adopting the green
				banking practices
				influence the
				performance of
				the organization.
21.	Ullah (2014)	To explain the prospects, progress and difficulties of green banking practices in Bangladesh.	Descriptive Research	He concluded that however there are many restrictions the overall green banking implementation is quite satisfactory.
22	Sharma et al. (2014)	The purpose of this study is to identify the opinion and level of awareness of bank employees and customers regarding green banking concept in public and private sector banks.	Primary Data	They concluded that India should take some strict steps to harness these banks and financial institution to adopt the principle equator guideline so that they can contribute in the protection of environment in future and practice green banking initiatives.
23.	Yadav and Pathak (2013)	To identify the different green banking approaches adopted by private and public sector banks in India.	Case Study Method	The findings of the study showed that Indian banking sector have understood the importance of environmental protection and also started taking various initiatives of green banking approach.
24.	Islam and Das (2013)	To examine the practices of green banking in	Secondary Data	The study concluded that green banking

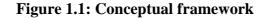
		Bangladesh.		practices in
		Dangiaucon.		Bangladesh are
				not in sufficient
				level as green
				banking plays an
				important role to
				protect the
				environment.
25	Ahmad et al.	To analyze the aspects	Structured	They concluded
	(2013)	in adoption of green	Questionnaire	that commercial
	()	banking in		banks in
		commercial banks of		Bangladesh are
		Bangladesh		practicing green
				banking policy to
				be more
				responsible
				corporate citizen.
26	Jha and	To check the	Descriptive	The authors were
	Bhome (2013)	awareness among	Research	of the opinion that
		bank employees,		online banking,
		associates and the		green loans,
		general public about		power saving
		green banking		equipment's, green
		concept.		credit card, use of
				solar and wind
				energy and mobile
				banking were
				some of the
				strategies that
				should be
				followed for going
				green.
27	Verma (2012)	To analyze the	Primary Data	The study
		evolution of Green		concluded that
		Banking concepts in		only a few of
		Indian Banking and		Indian banks have
		its developments in		adopted Green
		Indian banks.		Banking and
				financed some of
				Green Banking
28	Dolria and	To show the notantial	Drimory Data	based projects. This article also
20	Rakic and Mitic (2010)	To show the potential of Green finances,	Primary Data	showed the
	Mitic, (2010)	and presented the		positive impact
		most important Green		both on the side of
		financial products,		the provider of the
				products, given
				that the demand
				for Green products
				is constantly
		l	l	15 constantly

29	Polasik (2008)	To analyze	Primary Data	increasing, and for the users, as it provides products with lower costs. The study
		influencing aspects that impact on the decision for the adoption of internet banking in Poland.		concluded that though customer trust is hard to gain and easy to lose, the internet banking providers should make an effort to maintain a good record by maintaining the security threats in effective manner.
30	Sahoo and Nayak (2007)	To explore the green banking practices in India.	Descriptive research	It is found that some banks are introducing green bank loans and products such as investing in environmental projects i.e. recycling, farming, technology, waste etc., providing options for customers to invest in environmentally friendly banking products and investing in resources that combine ecological concerns and social issue.

2.3 Conceptual framework

A conceptual framework specifies which key variables influence a phenomenon of interest and highlights the need to examine how those key variables might differ and under what circumstance. The conceptual framework is the structure that can hold or support a theory of a research study. The conceptual framework introduces and describes the theory that explains why the research problem under study exists.





2.3.1 Green investment

Climate change presents risks and opportunities for the financial sector in both emerging and advanced economies. Financial institutions cannot afford to be outside of the transition path to low-carbon economies. Energy subsidies, emission standards, and carbon prices will all have a direct impact on the financial positions of these institutions' clients, making climate risk an important element of any credit decision. Financial institutions will also need to understand the climate risks associated with their non-green assets and design measures to mitigate them. Yet there are also significant opportunities for financial institutions to provide innovative financing products for energy efficiency upgrades, renewable power generation, green buildings, green transport, and climate-smart agriculture and architecture. And there is a growing community of investors seeking new climate and environment friendly opportunities, which financial institutions can use to diversify their funding base and reduce their funding costs (World Bank, 2016).

Green Bonds are any type of bond instrument where the proceeds are applied to finance or re-finance new or existing green projects. Such projects generally include renewable energy, energy efficiency, clean transportation, sustainable water management, climate change adaptation, sustainable agriculture and forestry, and pollution prevention and control.

2.3.2 Risk management

Gumbus (2006) Banks are in the business of managing risk, not avoiding it. Risk is the fundamental element that drives financial behaviour. Without risk, the financial system would be vastly simplified. However, risk is omnipresent in the real world. Financial Institutions, therefore, should manage the risk efficiently to survive in this highly uncertain world. The future of banking will undoubtedly rest on risk management dynamics. Only those banks that have efficient risk management system will survive in the market in the long run. The effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution. Credit risk is the oldest and biggest risk that a bank, by virtue of its very nature of business, inherits. This has, however, acquired a greater significance in the recent past for various reasons. Foremost among them is the wind of economic liberalization that is blowing across the globe. India is no exception to this swing towards market-driven economy. Better credit portfolio diversification enhances the prospects of the reduced concentration credit risk as empirically evidenced by direct relationship between concentration credit risk profile and NPAs of public sector banks. A bank's success lies in its ability to assume and aggregate risk within tolerable and manageable limits (Gumbus, 2006).

2.3.3 Green human resource

The green recruitment and selection process and practices of banks are increasing dayby-day. The banking sector of Bangladesh has taken some remarkable steps to boost up green HR practices however, the numbers are a few. The repetition problem while practicing green HR in banks should be eliminated so that all stakeholder's cumbersome can be eradicated from the process. The central bank can initiate policy guidelines to practice green HR by the commercial banks of Bangladesh. However, all head of HR and HR practitioners should initiate green HR process and practice within the in-house environment of banks in Bangladesh, which are really absent in the banking sector of Bangladesh. However, the developed green recruitment and selection process model can be similarly applied to every organization in the world. Finally, the green recruitment and selection process and practices can be studied in the other sector also with similar importance (Islam and Das, 2013).

2.3.4 Green product and service

Green Banking is a practical way of future sustainability and a long-term business strategy that aims for sustainable environmental conservation rather than profit. The study highlights that it is the banks' responsibility to educate their customers about green products and greener financing options. It is only through more extensive provision of a wider variety of green banking products and services that the banks in Mauritius will be able to increase awareness of and improve the general perception of customers regarding green banking. Furthermore, it can be deduced that green banks are at foundation mode in Mauritius. Although they have started implementing green practices, but still a lot of channels are not used by the Mauritian banks to green their activities. They should expand the use of environmental information in their business operations, credit extension and investment decisions. More commercial banks not only the major ones, must go for green banking adoption. From the mean analysis obtained for influence of green banking products and services on bank customers, it can be noticed that advertising for e-statements, internet banking, and mobile banking amongst others was not influenced greatly by respondents. Moreover, the majority of the respondents rated positively to the efficiency of green projects/CSR that is implemented by green banks in Mauritius (N. Pariag-Maraye et al 2017).

2.3.5 Green business strategy

The major form of green banking strategy to promote green image stems from the development of eco-friendly products and services to cater more for their environmental responsibility and to the evolving customer's expectation. The innovative basket of green products comprises of automatic payments, electronic statements, electronic and telephone banking. In addition, green banks do not restrict

them to products and services but also reach out to invest more in their infrastructure and technology. The motive for green infrastructure is mainly to cut down carbon emissions and to become more efficient (N. Pariag-Maraye et al 2017).

2.4 Conceptual review of perceived performance

Psychological well-being is influenced by the "surrounding contexts of people's lives" and has consistently been found to be associated with positive outcomes. Given the turbulent surrounding contexts facing SME owners in South Africa, the primary objective of this study was to investigate their level of psychological well-being and to establish the influence thereof on the financial performance of their businesses. A survey using a structured questionnaire was used to gather the necessary data. The population consisted of all owners of SMEs operating within the borders of the Eastern Cape province of South Africa. Criterion and convenience sampling were used and questionnaires were administered by field workers. In total 495 questionnaires were useable for statistical analysis. Scale validity and reliability was assessed, descriptive statistics calculated and Pearson's product moment correlations established. Multiple regression analysis was undertaken to investigate the hypothesized relationships. The results show that the participating SME owners have high levels of positive psychological well-being and that their businesses are performing financially. The results also suggest that the more SME owners display the attributes associated with environmental mastery, self-acceptance and autonomy, the more likely their SMEs are to perform financially (Love and Roper, 2015).

2.4.1 Economy

Green economies depend on renewable, sustainable forms of energy. These systems operate with the end goal of cutting carbon emissions, restoring biodiversity, relying on alternative energy sources and generally preserving the environment.

Green growth is a similar concept to green economy that has been promoted in recent years, especially in some regions of the world (e.g. Asia). The use of the word "growth" suggests the particular importance many countries attach to the quantitative expansion of their economies to accommodate growing populations, rising development aspirations and poverty reduction. Several institutions, including the World Bank, the OECD, the Global Green Growth Institute (GGGI) and the United Nations Economic Commission for Asia and Pacific (UN-ESCAP), consider green economic issues under the concept of green growth and several definitions have been developed for this term. According to the Organization for Economic Co-operation and Development (OECD 2017), green growth means fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. The definition clearly underscores that green policies do not need to slow economic growth. The green economy concept places a bit more emphasis on finite environmental limits.

2.4.2 Efficiency

Efficiency refers to the degree of a process (or set of processes) whether it relates to the level of success of processing within an organization, the cost effectiveness of a market, or the erosion of income by expense. Efficiency measurement determines how banks provide an optimal combination of financial services with a set of inputs. On the one hand, one is asking oneself bank capability to efficiently and technically produce, financial services for economic agents. On the other hand, banks as financial companies look for profitability. Therefore, they are constrained from achieving maximum profit, due to regulatory restrictions (minimum reserve, capital adequacy requirements, etc). Their management has substantial control on the cost of inputs, whereas the output side is beyond their control (Worthington, 1998).

2.4.3 Effectiveness

The degrees to which objectives are achieved and the extent to which targeted problems are solved. In contrast to efficiency, effectiveness is determined without reference to costs and, whereas efficiency means "doing the thing right," effectiveness means "doing the right thing."

Effectiveness: An output of specific review/analyses (e.g., the WASC Educational Effectiveness Review or its Reports on Institutional Effectiveness) that measure the achievement of a specific educational goal or the degree to which a higher education institution can be expected to achieve specific requirements. It is different from efficiency, which is measured by the volume of output or input used. As a primary measure of success of a programme or of a higher education institution, clear indicators, meaningful information, and evidence best reflecting institutional effectiveness with respect to student learning and academic achievement have to be gathered through various procedures. Engaging in the measurement of educational

effectiveness creates a value-added process through quality assurance and accreditation review and contributes to building, within the institution, a culture of evidence. (Vlasceanu et al., 2004).

2.5 Research gap

The review of relevant literature has contributed to enhance the fundamental understanding and knowledge, which is required to make this study meaningful and purposeful. There are various researchers conduct on lending practice, inventory management, financial performance and cash management of various commercial banks. In order to perform those analysis researchers have used various ratio analysis. The past researches in measuring financial performance of bank have focused on the limit ratios, which are incapable of solving the problems. Actually, perceive financial performance management is determined by various factors. In this research various green banking practice are systematically analyzed and generalized. Past researchers are not properly analyzed about status of green banking practice and its impact on perceive financial performance of commercial banks in Nepal. In this study financial performance of commercial bank is measuring by various financial and non-financial variables, trend analysis and various statistical tools as well and financial tools are used for analyzing survey data. Since the researcher have used data only one fiscal year but all the data are current and fact. This study tries to define perceive financial performance by applying and analyzing various financial tools like coefficient of correlation and trend analysis. Probably this will be the appropriate research in the area of financial performance of bank and financial institutions.

Most of research in international area like India, Bangladesh, China and western countries has covered or focused of green banking practices as determinants of sustainability of banks. However, to the best of author's knowledge, very few studies focused on banking sustainability in alignment with their green banking practices in Nepal. At the same time, research in the area that explores sustainability is new emerging issues in management of organization globally. Therefore, having identified this gap in the extant literature, the present study that along with significant, investigates the relationship and impact green banking practices and sustainability of banks in Nepal. It is a valuable attempt to plug the gap.

CHAPTER - III

RESEARCH METHODOLOGY

In order to achieve the objective of the study, certain method of research has to be used. This chapter is, therefore, devoted to describe the methods used for carrying out the research. It covers the type of research design used for under taking, population and sample, sampling process, source of data, data collection procedures and analytical tools used to analyze the data and develop the relationship between green banking practices and perceived performance of commercial banks in Nepal.

3.1 Research design

This research design is aimed at appraising the green banking practice in selected commercial banks in Nepal. Research design is an overall frame work or plan for the activities to be undertaken during the courses of a research study. The research design serves as framework for the study, guides the data collection and analysis of data, the research instruments to be utilized and sampling plan to be followed. The study has focused on green banking practices and perceives financial performance of employees in Global IME bank, NIC Asia bank, SBI bank, NMB bank, RBB bank and ADBL banks.

The study has used descriptive research design. The overall research work is conducted through collection of primary data. Primary data were collected through questionnaire filled up by employees. The questionnaire was simple and understandable to all level of employees, which focused on the employee of selected banks only.

3.2 Population and sample

The population of the study constitutes both officer (i.e. Manager, Assistant Manager, Chief Executive) and assistant level (i.e. Senior Assistant, supervisor, Junior Assistant) employees working in six banks operated in Kathmandu valley. It constitutes the employees working in both corporate and branch offices of the banks operated in Kathmandu valley. During the time of data collection there were twenty-eight commercial banks in Nepal. Out of them two domestic bank, two joint venture bank and two public bank are taken for research study on the based on their branch. Among them only six commercial bank (i.e. Domestic banks: Global IME bank, NIC Asia bank, Joint venture banks: SBI bank, NMB bank and Public banks: RBB bank and

ADBL bank) had been taken as the sample for the study because of their similar nature in terms of number of branches.

Convenient sampling method is used to select banks for study. The data was collected through 300 employees from all sample banks. Branches of commercial banks were selected using convenience sampling techniques.

Banks	N	3	Total	
	Above Officer	Officer	Assistant	
GME	2	15	33	50
NIC	2	15	33	50
SBI	2	15	33	50
NMB	2	15	33	50
RBB	5	16	29	50
ADBL	5	16	29	50
Total	18	92	190	300

Table: 3.1 Sample of study

Source: Field Survey 2020

The available literatures in the field of study area have suggested that the tendency of retention among the higher level and lower level position is high as compare to middle level position. Pursuant to the available base from the literature, employees working at theses level have not been covered under the study. Therefore, the total population of the respondents covers 300 employees working in six banks.

3.3 Sources and tools of data collection

To carry out the research primary data have been used on this study.

Primary data

The primary data are those that are collected a fresh and for the first time and thus happen to be original in character. Primary data has been collected through interview method and questionnaire distributed and collected from the respondents.

3.4 Data collection procedure

This study, data was obtained from the respondents through a structured questionnaire. The researcher had visited to the sampled banks in Kathmandu valley. The researcher also meets to the branch manager and their employees of the respective banks for asking after taken permission from head of department and then fill-up administering the questionnaire to the employee. The research supervisor, experts and professionals who are experienced in research were also requested to examine the questionnaire to check whether there are any items that need to be changed or rephrased, as well as the appropriateness of the time set for. This process helped refine the questionnaire, enhance its legibility and minimize the chances of misinterpretation it.

The researcher personally collects the data from the respondents of individual and in groups. While collecting the data the researcher told the title, purpose of research, reasons to select the topic and methods to fill the questionnaire and then distribute the questionnaire to the employee of six banks. Some respondents filled the questionnaire at the same time and rest of the questionnaire is collected after four-five days of distribution.

3.5 Method of data analysis

The collected data was analyzed using quantitative data analysis methods. Descriptive analysis such as frequencies and percentages was used to present quantitative data in form of tables. Data from questionnaire was coded and entered into the computer using Statistical Package for Social Science (SPSS Version 22.0) for analysis. It helps to calculate the standard deviations, correlations and frequency distribution of each independent and dependent variable against the five independent variables using the regression model. The mean, percentage and standard deviation are the most commonly used descriptive statistics. Measures of central tendency were used in this study to give a description of the data.

3.6 Instrumentation of data collection

The data is collected by using the research questionnaires for the purpose of collecting primary data. The questionnaire is structured and there are multiple choices, single responses and likert scale. Self-administered questionnaires were presented to respondents. Data has been collected through direct questionnaire. In this study questionnaires were developed to study different variables determining retention process. "The questionnaire should investigate attitudes, beliefs, feelings, behavior, knowledge and demographic characteristics" (Webb, 2002). A questionnaire usually consists of a number of measurement scales and elicits demographic information from respondents (Ilieva, Baron and Healey, 2002). The questions and design of the questionnaire should be adapted to the educational levels and background of the respondents. Questions in the questionnaire are quite clear, short and complete, relevant and appropriate, precise, explicit and understandable in the present study. The questions are closed-ended, "which offer the respondent a range of possible answers from which the respondent must select his/her appropriate choice" (Mitchell, 1994). Because of the fact that every respondent is asked to answer the same set of structured and predetermined questions, coding, data treatment and interpretation is relatively easy. The questionnaire contains only close-ended questions in order to create less time consuming when filling in the answer. Most of the close-ended questions are measured using 5-point scales anchored by 1 (strongly agree) and 5 (strongly disagree) to create an easy to answer and unbiased questionnaire.

3.7 Validity test

Prior to study, a pilot test was conducted to validate the reliability of questionnaire developed to carry out this research with 10% of samples. Then the responses were analyzed using SPSS software to test whether the study tools were valid or not. The questionnaire was distributed randomly to the banks. Feedback and reviews received from them as well as expert's opinion were incorporated and questionnaire was adjusted accordingly.

3.8 Reliability test

To check internal reliability, this study has performed Cronbach's Alpha Test of Reliability for the purpose of specifying whether the items of each dimension are internally consistent and whether they can be used to measure the same construct or dimension of green banking and perceived performances. According to Nunnaly (1978), the value of Cronbach's alpha should be 0.7 or above.

Variable	No. of items	Cronbach's Alpha
Green Investment	5	0.882
Risk Management	5	0.755
Green Human Resource	5	0.850
Green Product/Services	5	0.767
Green Business Strategy	5	0.836
Perceived Performance	15	0.835

Table 3.2 Reliability analysis

Table 3.1 shows that green investment, risk management, green human resource, green product/services, green business strategy and perceived performance, yielded alpha coefficients of 0.882, 0.755, 0.850, 0.767, 0.836 and 0.835 respectively. This indicates that all the variables score above 0.70 on the Cronbach's alpha scale, as recommended by Nunnally (1978).

CHAPTER - IV RESULTS

This chapter presents detail research results discussions in response to the research objectives that were set in chapter one as well as research questions. The main purpose of this study was to examine the relationship between green banking practices and perceive financial performance of commercial banks. This chapter is mainly concerned with the analysis and interpretation of data, which was collected from three hundred employees from commercial banks in Kathmandu district. The data gathered from different sources were analyzed and interpreted under five dimensions: green investment (GI), risk management (RM), green human resource management (GHR), green products and services (GPS) and green business strategies (GBS).

In this chapter, the data collected from the questionnaire for the study were analyzed and interpreted. A set of questionnaire which is given in appendix consisting of closed ended questions was developed as a research tool. The closed ended questions related to the impact of green banking practice with its five dimensions were to be analyzed on a 5-point likert scale i.e. Strongly agree, agree, neutral, disagree, and strongly. The data were analyzed by using the Statistical Package for Social Sciences (SPSS) programme, version 22.0. The data is presented in tables beginning with demographic variables and then research questions that are formulated to guide the research. The first part of the chapter considered the demographic background of the respondents focusing on job position, gender, age, academic qualification, and working experience. The second part presented the findings from the study in relation to the research question.

4.1 Demographic characteristics of respondents

The study collected information on demographic characteristics. Detailed results on each of the demographic characteristics are presented below:

Position	Frequency	Percent
Assistant	190	63.3
Officer	92	30.7
Above Officer	18	6.0
Total	300	100.0
Gender	Frequency	Percent
Male	160	53.3
Female	140	46.7
Total	300	100.0
Age	Frequency	Percent
Less than 20 year	2	0.6
20-30 year	192	64.0
30-45 years	80	26.7
Over 45 year	26	8.7
Total	300	100.0
Qualification	Frequency	Percent
Bachelor	44	14.7
Master's	242	80.7
Above Master's	14	4.7
Total	300	100.0
Experience	Frequency	Percent
Less than 1 year	54	18.0
1-3 year	86	28.7
3-5 year	66	22.0
Above 5 year	94	31.3
Total	300	100.0

Table 4.1 Demographic characteristics of respondents

Source: Field Survey 2020

In analyzing the job position structure majority of the respondents were assistant, officer and above officer. In particular, the data showed that out of 300 respondents, 190 (63.3%) of the respondents were assistant while 92 (30.7%) were officer and 18 (6%) was above officer. which was presented in above table. In analyzing the gender structure majority of the respondents were Male. In particular, the data showed that out of 300 respondents, 160 (53.3%) of the respondents were male while 140 (46.7%) were female which was presented in above table. The demographic variable of the respondent's age examined. The results showed that, the majority of respondents were in the age bracket of less than 20 years, 2 (0.7%) This was followed by those who aged between 20-30 years 192 (64%). Followed by 80 (26.7%) were between the ages of 30-45 years. And 26(8.7%) were the age of over 45. This could be as a result that most of

the bank employees are youngers which was displayed in table. The next sample characteristic examined was the educational level of the respondents. Analysis showed that, the majority of the respondents were master's holders. There were 242 (80.7%) masters' holders while 44 (14.7%) were bachelor's degree holders, 14 (4.7%) were above master's holders. For such assessment, the education level of the respondents seemed to be satisfactory. These research study findings show that level of education matters in easy understanding of the technology. Therefore, there is a strong relationship between the factor of level of education and use of technology. The demographic characteristic was the working experience of the respondents. From the above table we can see that the highest respondents are from the group of employees that is 94 which means 31.3% and lowest respondents are from the group of less than 1 year is 54 i.e. 18.0% of the respondent. Besides that, 86(28.7%) are of 1-3 year, 66(22.0%) are of 3-5 year working experiences respectively.

4.2 Descriptive analysis

Descriptive statistics are used to describe the basic features of the data in a study. They provide simple summaries about the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis data. Descriptive statistics are used to present quantitative descriptive in manageable form. It helps us to simplify large amount of data in a sensible way. Each descriptive statistic reduces lots of data into a simpler summary. Here descriptive analysis incorporates calculation of statistical measure such as mean, standard deviation, and correlation. It's presented logically as per the study objectives. All the questionnaires were measured on five point Likert scale and anchored by "strongly agree" = 1, to "strongly disagree" =5. These values help the researcher to analyze the data with respect to frequencies and percentage relating to research questions and variables in order get better insight to the respondent's behaviour cross-tabulation of different variable was analyzed.

4.2.1 Responses of respondent on green banking practices and perceived performance:

The researcher in this section wants to find out the responses of respondent on electronic banking products through the data collected from questionnaire during the research process. Here, descriptive analysis incorporates calculation of statistical measures such as frequency, mean and standard deviation. Questions dealt with ranking system on five-point scale Likert anchored "Strongly Agree" =1, "Agree" = 2, "Neutral" = 3, "Disagree" = 4 and "Strongly Disagree" = 5.

4.2.2 Status of green investment

Table 4.2 Status of green investment

	Те	est scale =	= 3
Observation Statements	Ν	Mean	S.D.
Our bank increases the proportion of investment in			
environment project like solar energy. Hydropower and	300	1.87	.787
other similar projects.			
Our bank provides reasonable interest loan (Green loan) to			
consumer who initiate environmental project in social or	300	2.21	.920
individual level.			
Our bank encourages investment to the economic	200	2.25	050
activities that help to recover environmental degradation.	300	2.25	.859
Our bank encourages investment to that project which	200	0.15	016
helps to prevent deterioration of environment.	300	2.15	.816
Our bank encourages investment to those project that are	200	0.17	1.027
not harmful to the environment.	300	2.17	1.037
Green Investment (GI)	300	2.131	.6599

Source: Field Survey 2020

Table 4.2 exhibits the descriptive statistics that which effective green investment depends on encourages green investment. Which is affected by the services provide by the bank to its customer. The table 4.2 shows the response of respondent on the first statement showed that the use of green investment is solar energy, Hydropower and other similar projects with the lower mean of 1.87. This statement had high agreed response from the respondent which shows that they are highly satisfy with the use of green investment as per the view of solar energy, Hydropower and other similar projects. The second statement i.e. use of encourages green investment is secure for them had least response on agree and strongly agree which results the higher mean of 2.25. According to these results conclude that most of the respondents of bank encourage investment to the economic activities that help to recover environmental degradation.

4.2.3 Status of risk management

Table 4.3 Status of risk management

	Г	Test scale	= 3
Observation Statements	Ν	Mean	S.D.
Addressing environment issues in financial operations	300	2.15	.845
are a part of sound risk management in our bank.	500	2.15	.045
Our bank works with various national and international			
NGOs for insight & expertise on environmental	300	2.82	.989
management issues and performance.			
Our bank encourages projects which take care of	300	2.29	.891
performance and use of natural renewable resource.	300	2.29	.091
Our bank considers environmental risk management in	300	2.21	1 001
business decisions.	300	2.21	1.081
Our bank carries environmental rating of the investment	200	2.55	021
proposal.	300	2.55	.831
Risk Management (RM)	300	2.401	.6642
Source: Field Survey 2020			

The descriptive analysis for the risk management in table 4.3 that describes the variables for risk management which includes five attributes. Among the five attributes, "Addressing environment issues in financial operations are a part of sound risk management in our bank", has the lowest mean of 2.15 with standard deviation of 0.845 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no significant difference between the risk management and their performance. Among the five attribute, "Our bank works with various national and international NGOs for insight & expertise on environmental management issues and performance", has the highest mean of 2.82 with the scale of minimum 1 to maximum of 5. Its average mean of RM is 2.401 so that it shows positive relation.

4.2.4 Status of green human resource

Table 4.4 Status of green human resource

	Т	est Scale	= 3
Observation Statements	Ν	Mean	S.D.
Our bank follows green practices (online advertisement			
tools, use of email, video based telephone interviews) while	300	2.21	1.099
recruiting and selecting staffs.			
Our bank conduct green banking training and capacity	300	2.44	1.044
building program for the employees.	300	2.44	1.044
In our bank employees actively participate in the green	300	2.51	1.020
training programs.	300	2.31	1.020
Green events like seminars, symposiums, discussion	300	2.68	1.056
meetings etc. are conducted in our bank.	300	2.08	1.050
Academic training and workshops on green banking.			
Environmental and social risk management was conducted		2.50	.959
in our bank.			
Green Human Resource (GHR)	300	2.467	.853

Source: Field Survey 2020

The descriptive analysis for the green human resource in table 4.4 that describes the variables for green human resource which includes five attributes. Among the five attributes, "Our bank follows green practices (online advertisement tools, use of email, video based telephone interviews) while recruiting and selecting staffs", has the lowest mean of 2.21 with standard deviation of 1.099 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no significant difference between the green human resource and their performance. Among the five attribute, "Green events like seminars, symposiums, discussion meetings etc. are conducted in our bank", it has the highest mean value is 2.68 with the five-point scale of minimum 1 to maximum of 5. Its average mean is 2.467 which create positive relation between GHR and financial performance.

4.2.5 Status of green product and services

4.5 Status of green product and services

	r	Fest scale =	3
Observation Statements	Ν	Mean	S.D.
Our bank achieves lasting growth by offering sustainable financial products or services.	300	2.24	.901
Our bank focused on green products/services as our concern for green banking initiatives.	300	2.35	.911
Green products/services are more in demand by customers.	300	2.70	1.05
Green products/services have low perceived financial risk.	300	2.58	.913
Our bank develop environment friendly product that combine social concern.	300	2.30	1.02
Green Product and Services (GPS)	300	2.433	.755

Source: Field Survey 2020

The descriptive analysis for the green product and service in table 4.5 that describes the variables for green product and service which includes five attributes. Among the five attributes, "Our bank achieves lasting growth by offering sustainable financial products or services", has the lowest mean of 2.24 with standard deviation of .901 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no significant difference between the green product and services and their performance. Among the five attribute, "Green products/services are more in demand by customers", has the highest mean of 2.70 with the scale of 1 to 5. Its average mean shows 2.43 so that can be significance with financial performance.

4.2.6 Status of green business strategy

Table 4.6 Status of green business strategy

	Т	est Scale	= 3
Observation Statements	Ν	Mean	S.D.
Each year our bank determine a set of yearly green target.	300	2.41	.851
Our bank prepare necessary budget for pursuing the	300	0.51	1.05
strategic plan in synergy with green target.	300	2.51	1.05
Our bank use online transaction (E-banking, mobile	200	0 1 0 1	025
banking) for green banking.	300	1.91	.935
Our bank provide reasonable interest loan to promote	200	0.11	010
green banking.	300	2.11	.919
Our bank use video conferencing instead of physical	200	2 41	007
movement in order to promote green banking.	300	2.41	.882
Green Business Strategy (GBS)		2.271	.645
Source: Field Survey 2020			

Source: Field Survey 2020

The descriptive analysis for the green business strategy in table 4.6 that describes the variables for green business strategy which includes five attributes. Among the five attributes, "Our bank use online transaction (E-banking, mobile banking) for green banking", has the lowest mean of 1.91 with standard deviation of .935 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no significant difference between the green business strategy and their performance. Among the five attribute, "Our bank prepares necessary budget for pursuing the strategic plan in synergy with green target", has the highest mean value is 2.51 with the five-point scale of minimum 1 to maximum of 5. Its average mean is 2.27 which is significance with highest mean value.

4.2.7 Status of efficiency

Table 4.7 Status of efficiency

			= 3
Observation Statements	Ν	Mean	S. D
On almost all the green banking programmes/projects activities are done the same as before, but with fewer resources in term of money, staff, space etc.	300	2.39	.872
Green banking practices always look forward to getting out much in relation to how much they put in.	300	2.28	.811
Green banking always ensures that in every process there is best use of resource by getting it right first time.	300	2.31	.835
Every staff in the green banking practice endeavours to optimally use resources on time in the attainment of my bank objectives, targets and tasks.		2.30	.945
Efficiency (E)	300	2.320	.696

Source: Field Survey 2020

The descriptive analysis for the efficiency in table 4.7 that describes the variables for efficiency which includes four attributes. Among the five attributes, "Green banking practices always look forward to getting out much in relation to how much they put in.", has the lowest mean of 2.28 with standard deviation of 0.811 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no linked between the green human resource management and their performance. Among the five attribute, "On almost all the green banking programmes/projects activities are done the same as before, but with fewer resources in term of money, staff, space etc.", has the highest mean value is 2.39 with the five-point scale of minimum 1 to maximum of 5.

4.2.8 Status of effectiveness

Table 4.8 Status of effectiveness

	Т	est scale =	3
Observation Statements	N	Mean	S.D
On all the green banking programmes/ projects the officers always look out the impact which is the output of all these functions either contributes to or influences financial performance as a whole.	300	2.27	0.792
There is satisfaction on all green banking programmes / projects which is exhibited by how the service is perceived by both senior management and the internal staff on these projects.	300	2.36	0.795
There is a high level of modernization exhibited by the extent to which the bank has adopted green banking practices that would be regarded as being innovative and forward looking.	300	2.45	0.854
All staff at the green banking practice strive to achieve the intended results in terms of quality in accordance with the set targets and performance standards for service delivery.	300	2.33	1.031
Effectiveness (ETN)	300	2.3517	0.691
Source: Field Survey 2020			

Source: Field Survey 2020

The descriptive analysis for effectiveness in table 4.8 that describes the variables for effectiveness which includes four attributes. Among the five attributes, "On all the green banking programmes/ projects the officers always look out the impact which is the output of all these functions either contributes to or influences financial performance as a whole.", has the lowest mean of 2.27 with standard deviation of 0.792 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no linked between the green human resource management and their performance. Among the five attribute, "There is a high level of modernization exhibited by the extent to which the bank has adopted green banking practices that would be regarded as being innovative and forward looking.", has the highest mean of 2.45 with the scale of minimum 1 to maximum of 5.

4.2.9 Status of economy

Table 4.9 Status of economy

·	Т	est Scale	= 3
Observation Statements	Ν	Mean	S. D
The green banking practice aims at minimizing the cost of resources for all the available programmes/projects.	300	2.35	.911
The bank pays the price that is exactly for what goes into providing green service or product.	300	2.50	.879
The green banking practices generates cost savings on most of its procurements. That is, it does less with fewer resources.	300	2.37	.798
The green banking takes bulk discounts by buying/procuring in large quantities	300	2.31	.974
In the green banking cost is more significant than the quality of the service.	300	2.21	.906
In green banking quality of services is more significant than the costs.	300	2.03	.767
I always safeguard the public property/ assets entrusted to me to ensure that there is no damage.	300	2.11	.867
I always ensure that there is proper and economical utilization of public funds.	300	1.83	.824
Economy (Eco)	300	2.217	.562

Source: Field Survey 2020

The descriptive analysis for the economy in table 4.9 that describes the variables for economy which includes eight attributes. Among the eight attributes, "I always ensure that there is proper and economical utilization of public funds." has the lowest mean of 1.83 with standard deviation of 0.824 and minimum value of 1 and maximum value of 5 which is close to agree with 5 scale point. This indicates that there is no linked between the green human resource management and their performance. Among the five attribute, "The bank pays the price that is exactly for what goes into providing green service or product." has the highest mean value is 2.50 with the five-point scale of minimum 1 to maximum of 5.

4.3 Inferential analysis

Inferential statistics analysis is procedures that use to allow researcher to generalized observation made with sample to the larger population from which they are selected. It enables use of one or more samples of observation to infer values of a population. It produces new information by making prediction and generalization based on samples.

4.3.1 Correlation analysis

Correlation analysis between variables was studied to find relations among them. Pearson's correlation was carried for variables. This section deals with the what extent variables under study are correlated to each other. A positive correlation reveals that the direction of relationship is positive with one increasing in action to other increase. Meanwhile, a negative correlation reveals an inverse; an increase in one when the other decreases.

		Е	ETN	ECO	PP
GI	Pearson Correlation	.492**	.312**	.459**	.473**
	Sig. (2-tailed)	.000	.000	.000	.000
	Ν	300	300	300	300
RM	Pearson Correlation	.463**	.385***	.365**	.461**
	Sig. (2-tailed)	.000	.000	.000	.000
	Ν	300	300	300	300
GHR	Pearson Correlation	.416***	.354**	.293**	.406**
	Sig. (2-tailed)	.000	.000	.000	.000
	Ν	300	300	300	300
GPS	Pearson Correlation	.452**	.335**	.255**	.400**
	Sig. (2-tailed)	.000	.000	.000	.000
	Ν	300	300	300	300
GBS	Pearson Correlation	.315***	.437**	.467**	.455***
	Sig. (2-tailed)	.000	.000	.000	.000
N		300	300	300	300

Table 4.10 Correlation between dependent variables and independent variables

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

Source: Field Survey 2020

The correlation analysis of different variables in table 4.10 shows the relationship between the dependent variables and the independent variables. The relationship between green banking practice at commercial banks of Nepal and other five independent variables i.e. green investment, risk management, green human resource management, green product and services and last another green business strategy.

4.3.1.1 Correlation between green investment with perceived performance:

The correlation coefficient between green investment and the efficiency (E) was found to be (0.492) which is positively correlated and p-value recorded as 0.000 which is highly significant. Thus it can be concluded that there is a positive and significant relationship between green investment and the efficiency. Therefore, there is the strong relationship between green investment and Efficiency. It is also same relation with perceived financial performance (Efficiency 0.492, Effectiveness 0.312 and Economy 0.459) which is (0.473). This means that changes in green investment are strongly correlated with the changes in Efficiency (i.e. 0.492). It has the strong relationship with the efficiency with the 1%. These results conclude that there is a strong relation between the green banking practice and perceived performance.

4.3.1.2 Correlation between risk management with perceived performance:

The correlation coefficient between Risk management (RM) and the Efficiency (E) were found to be (0.463) which is positively correlated and p-value recorded as 0.000 which is highly significant. Thus it can be concluded that there is a positive and significant relationship between Risk management and the efficiency. Therefore, there is the strong relationship between Risk management and efficiency. It is also same relation with perceived financial performance (Efficiency 0.463, Effectiveness 0.385 and Economy 0.365) which is (0.461). This means that changes in risk management are strongly correlated with the changes in efficiency (i.e.0.463). It has the strong relationship with the efficiency with the 1%. These results conclude that there is a strong relation between the green banking practice and perceived performance.

4.3.1.3 Correlation between green human resource with perceived performance:

The correlation coefficient between green human resources (GHR) and the efficiency (E) were found to be 0.416 which is positively correlated and p-value recorded as 0.000 which is highly significant. Thus it can be concluded that there is a positive and significant relationship between GHR and efficiency. Therefore, there is the strong

relationship between GHR and efficiency. It is also same relation with return on perceived financial performance (Efficiency 0.416, Effectiveness 0.354 and Economy 0.293) which is (0.406). This means that changes in green human resource are strongly correlated with the changes in efficiency (i.e. 0.416). It has the strong relationship with the efficiency with the 1%. These results conclude that there is a strong relation between the green banking practice and perceived performance.

4.3.1.4 Correlation between green product and service with perceived performance:

The correlation coefficient between green product and service (GPS) and the Efficiency (E) was found to be (0.452) which is positively correlated and p-value recorded as 0.000 which is highly significant. Thus it can be concluded that there is a positive and significant relationship between GPS and efficiency. Therefore, there is the strong relationship between GPS and efficiency. It is also same relation with perceived financial performance (Efficiency 0.452, Effectiveness 0.335 and Economy 0.255) which is (0.40). This means that changes in GPS are strongly correlated with the changes in efficiency (i.e. 0.452). It has the strong relationship with the efficiency with the 1%. These results conclude that there is a strong relation between the green banking practice and perceived performance.

4.3.1.5 Correlation between green business strategy with perceived performance:

The correlation coefficient between green business strategy (GBS) and the economy (Eco) was found to be (0.467) which is positively correlated and p-value recorded as 0.000 which is highly significant. Thus it can be concluded that there is a positive and significant relationship between GBS and Economy. Therefore, there is the strong relationship between GBS and Economy. It is also same relation with perceived financial performance (Efficiency 0.315, Effectiveness 0.437 and Economy 0.467) which is (0.455). This means that changes in GBS are strongly correlated with the changes in economy (i.e. 0.467). It has the strong relationship with the economy with the 1%. These results conclude that there is a strong relation between the green banking practice and perceived performance.

4.3.2 Regression analysis

In order to test the statistical significance and robustness of the results, this study relies on primary data analysis based on the regression model specified in the chapter three. It basically deals with regression results from various specifications of the model to examine the estimated relationship of perceived financial performance (Efficiency, Effectiveness and Economy) as dependent variable and (Green investment, Risk Management, Green Human Resource, Green Product and Services and Green Business Strategy) as independent variables. The regression results have been presented in tables below.

Table 4.11 Regression analysis of impact of green banking practice on perceived performance

Model	R	\mathbb{R}^2	Adjusted R	Std. Error of the					
			Square	Estimate					
1	.590 ^a	.348	.337	.46786					
a. Predictors: (Constant), GBS, GI, GPS, RM, GHR									

Model Summary

Source: Field Survey 2020

The impacts of green banking practice on perceived performance (PP) indicated by table 4.11 provides the values of R and R². The R value represents the simple correlation and is 0.59 the (R Column), which indicates a high degree of correlation among the variables. The R² value indicates 34.8 % of the total variation in the dependent variables, efficiency, effectiveness and economy can be explained by the independent variables and remaining by the other factors.

		ANOVA	1						
Model	Sum of	DF	Mean Square	F	Sig.				
	Squares								
Regression	34.353	5	6.871	31.388	.000 ^b				
Residual	64.353	294	.219						
Total	98.706	299							
a. Dependent Variable: Perceived Performance									
b. Predictors: (Constant	b. Predictors: (Constant), GBS, GI, GPS, RM, GHR								

4.12 Model summary of independent variables with perceived performance

Source: Field Survey 2020

The analysis ANOVA table 4.12 indicates that the regression model predicts the relationship between independent variables and dependent variables is significant since calculated P-value is 0.00 which is less than 0.05.

Model	Unstandardized S		Standardized	t	Sig.
	Coefficients		Coefficients		
	В	Std. Error	Beta		
(Constant)	.813	.125		6.513	.000
GI	.239	.060	.275	4.017	.000
RM	.137	.076	.158	1.792	.074
GHR	.017	.062	.025	.268	.789
GPS	.009	.053	.012	.175	.861
GBS	.255	.056	.286	4.525	.000

Table 4.13 Beta coefficient of independent variable with perceived performance

Source: Survey 2020

The analysis of coefficients indicated by table 4.13, is observed that the beta for green investment is 0.239, risk management is .137, green human resource 0.017, green product/services is 0.009 and green business strategy is 0.225. The negative sign in front of the beta of these variables signify an indirect relationship between the explained variables whereas positive sign signifies a proportional relationship between the explained variables. From the above table 4.13 these results conclude that there is positive relationship between green investment, risk management, green human resource, green product and services and green business strategy with perceive financial performance. Green investment and green

business strategy with perceive financial performance is statistically significant at 0.000 which are less than the alpha significance level equal to 0.05. So, Green Investment and Green Business Strategy are having highest degree of relationship with the non-financial performance.

4.4 Major findings

- i. This study was found that employees are getting diverted from traditional banking activities and replacing traditional banking by adopting green banking services like internet banking, mobile banking, banking through ATMs. (Aggregate mean is 2.271 and SD is 0.645 are the results from Table 4.6 'Status of green business strategy')
- ii. This study was found that their commercial banks provide almost all kinds of green banking services ranging from online banking, mobile banking, banking through ATMs, green deposits, green mortgages and loans to green credit cards and green reward checking accounts. (Aggregate mean = 2.433 and SD = 0.755 are the results from Table 4.5 'Status of green product and services')
- iii. It can be interpreted that the banks are taking initiatives to reduce the carbon footprint and to help the government in making the earth a better place to live. (Aggregate mean = 2.131 and SD = 0.6599 are the results from Table 4.2 'Status of green investment')
- iv. Green banking services that are provided by their banks. They said that the green banking services save their lot of time and also save them with all the paperwork which makes their activities and bank work a complex procedure. Further, they also said that as the green banking services are available 24*7 so it can be easily accessible at any time even during holidays. (Aggregate mean = 2.320 and SD = 0.696 are the results from Table 4.7 'Status of efficiency')
- v. Banks are adopting green banking services to save environment from carbon footprints from banking activities. (Aggregate mean = 2.433 and SD = 0.755 are the results from Table 4.5 'Status of green product and services')
- vi. Majority of the employees assured that green banking system had changed the working environment of banks to a greater extent as evident from removal of traditional practices by the banks and adoption of new online practices. (Aggregate mean = 2.271 and SD = 0.645 are the results from Table 4.6 'Status of green business strategy')

- vii. Green investment and green business strategy are having highest degree of relationship with the economy. (0.459 and 0.467)
- viii. Green investment, green product / services and risk management are having highest degree of relationship with the efficiency (E). (0.492, 0.452 and 0.463)
 - ix. Green investment, risk management, green human resource, green product/services and green business strategy are highly correlated with perceived performance. (0.473, 0.461, 0.406, 0.400 and 0.455)
 - x. All the variables of perceived performance (Economic, Efficiency and Effectiveness) also have positive correlation with green banking practice. It means that all variables have higher impact on the perceived performance. (R = 0.590 and $R^2 = 34.8\%$)

CHAPTER - V CONCLUSIONS

After the analysis and interpretation of collected data as per the design of study, this is the concluding chapter an attempt has been made to drive conclusion. This chapter deals with the discussions, conclusions and implications derived from the study, relationship between green banking practices and perceive financial performance of commercial banks of Nepal. It consists of three sections. First section provided discussions of the study, second section provided conclusions of the study and final section consists of the implications to solve the problem observed during the study.

5.1 Discussion

The research contributed in understating the green banking practices and perceived performance of commercial banking sector in Nepal. It confirms previous research study in the topic with an empirical support from Nepal. The main purpose of the study was to understand and identify the factors that supports in green banking practices and sustainability at commercial banks of Nepal. This study investigated the different factors that can influence the sustainability in commercial banks.

The research used the data collected from the survey conducted within Kathmandu valley are used to examine the data covering 300 samples across the commercial banks employee in Nepal. The present scenario of green banking practice in Nepalese Commercial Banks has a moderate environment for their green banking practices in Nepal. Most of the respondent agreed that basically determinants were less than the 3 and not in near to 4 and 5, so that the respondent can feel the moderate environment. Within the individual dimensions of Green investment, risk management, green human resource, green product/service and green business strategy are highest concern, with the mean value of 2.13, 2.40, 2.46, 2.43 and 2.27 respectively. Similarly, Employee's has medium level of agreeableness towards green banking practice (Field Survey 2020). However, medium side of agreeableness on using the current greening banking practices soon.

The result of the study shows that out of five variables of green banking practice five variables i.e. green investment, risk management, green human resource, green product/service and green business strategy is consistent with the previous empirical

studies. Sustainable development contrast with the previous empirical studies, this research discussion raises the issue in Nepalese context.

This study focuses on the relationship between green banking practices and perceived performance in Nepalese context. The result of this study suggests that green banking practices are practiced at moderate level in Nepalese banks, i.e. green investment, risk green human resource, green business strategy management, and green product/services are moderately practiced in Nepalese banks. The banks are moderately focused on green products/services as our concern for green banking initiatives and to develop environment friendly product that combine social concern. Likewise, the banks encourage investment to the economic activities that helps to recover environmental degradation. Strategically, the Nepalese banks are weaker in sense of strategic plan in synergy with green targets. There is a poor practice on green banking training and capacity building program, green banking, and environmental and social risk management were conducted in our bank. This study does support partially with different views than that of the Jeucken (1999), Weber (2017), Islam and Das (2013), Yadav and Pathak (2013), shows cleaner or greener activities are also existed in many developing countries.

In terms of relationship between green banking practices, it indicates that there is a comparatively strong correlation between green investments, risk management, green human resource, green business strategy and green product/services with the perceived performances.

Green Banking is a practical way of future sustainability and a long-term business strategy that aims for sustainable environmental conservation rather than profit (Deka, 2015). The study highlights that it is the bank's responsibility to educate their customers about green products and greener financing options. It is only through more extensive provision of a wider variety of Green Banking products and services that the banks in Mauritius will be able to increase awareness of and improve the general perception of customers regarding green banking (Nath, Nayak & Goel 2014). Furthermore, it can be deduced that green banks are at foundation mode in Mauritius. Although they have started implementing green practices, but still a lot of channels are not used by the Mauritian banks to green their activities. They should expand the use of environmental information in their business operations, credit extension and investment decisions. More commercial banks not only the major ones, must go for green banking adoption. From the mean analysis obtained for influence of Green Banking products and services on bank customers, it can be noticed that advertising for e-statements, internet banking, and mobile banking amongst others was not influenced greatly by respondents. Moreover, the majority of the respondents rated positively to the efficiency of green projects/CSR that is implemented by green banks in Mauritius (Rauth and Malhotra 2015). The study found that the existence of green consumers in Mauritius gives opportunities for banks to expand their business in an environmental friendly product. Banks can expand the concept of green through green marketing as a communication means with their clients about campaign activities for programs that consider the environment thereby reinforcing the image as an environmental friendly bank.

5.2 Conclusions

Based on the findings of this study, recommendations have been given on the green banking practices and perceived performance of commercial banks in Nepal. The limitations of the study as well as suggestions for further research have also been discussed. The following part gives the conclusions for the study by presenting the main points to answer the research questions:

The first objective of the research was to identify of the green banking practices of commercial banks in Nepal. The findings of the research states that green banking promotes environmental friendly practices and reduces carbon footprints from banking activities. This comes in many forms using online banking instead of branch banking, paying bills online, instead of mailing them open up CDs and money market counts at online banks (Mobile banking, internet banking, ATM card, Credit card, online fund transfers etc.), support green initiatives. Green banking helps to create effective, time saving, easy to use of banking service and far reaching market based solution to address a range of environmental problems, including climate change, deforestation, air quality issues and bio diversity loss while at the same time identifying and securing opportunities that benefit to banking customers.

The second objective was to examine the relationship between green banking practices and perceived performance of commercial banks in Nepal. The result has shown positive and significant contribution of the influencing factors such as green investment, risk management, green human resource, green product/services and green business strategy.

There are many factors that determine perceived performance of commercial banks but with the observed determinants the green investment and green business strategy have shown more impact on perceived performance. Similarly, green investment, green product/service and green business strategy also have significance relationship with the efficiency.

The third objective was to examine the impact of green banking on perceived performance of commercial banks in Nepal. The findings of research state that perceived performance are highly influenced by green investment, green human resource, risk management, green product/service and green business strategy. Out of them perceive financial performance was highly influence by green investment and green business strategy.

5.3 Implications

All the commercial banks should carry out the programs that will motivate to the other banks to work more effectively and with much more effort. The green banking policies and organizational philosophy should reflect the factors that contribute towards to green banking practices.

5.3.1 Managerial implication

While banking sector are acknowledging the importance of perceived performance globally, Nepalese banking sector remains a challenge to be greener and sustainable. These banks should emphasize towards the implementation of an effective strategy to achieve a perceived performance state in terms of green banking practices. As demonstrated by this empirical study of the Nepalese commercial banks, the integrated implementation of the studied components of the model proposed by this study are indispensable to implement the integrated perceived performance in terms of the social, ecological and economic aspects. The implementation of green banking practices should be embedded deeply to foster a culture of perceived performance. The green banking practice should be initiated with social, ecological and economic visions and goals. Research has shown that an organization's culture operates at multiple levels,

and developing and maintaining a culture of perceived performance, requires leaders to address each of these levels.

5.3.2 Research implication

The further research would be focused on the more sample. They will do their research activities by putting more variables than this research variable. This study has covered only six commercial banks of Nepal. It does not cover other banks, financial institutions and other sectors of the economy. In the same way, further study may be a comparative one such as Development banks with financial institutions, or all commercial banks with other banks or banking industry with other industry. The further study can be conducted in the same topic and same areas after the certain time duration to measure the green banking practice on the basis of government policies. so that researchers can conduct whether there is any change in demographical characteristics, response on green banking factors and perceived performance, relationships between green banking practice and demographic characteristics, impact of green banking practice on Nepalese investor and green banking practice predictability of the corporate social responsibility (CSR) or not. That can be new topic for the further researcher.

Adoption of green approach is more than just becoming environment-friendly as it is associated with many social benefits like reduction in the risk, as well as, the cost of the bank, enhancement of banks reputations and contribution to the common goal of protecting environmental besides enhancing the reputation of the bank. In a broad sense, green banking serves the commercial objective of the bank as well as the corporate social responsibility. Thus, it has become important for banks to realize their responsibilities towards the environment as well as the society and face the global market by competing and surviving with the green banking system.

5.3.3 Recommendations for future researchers:

This study was conducted in Nepal and selected six commercial banks having largest number of branches, it is clear that results pertain specifically to the Nepalese context. Future studies incorporating respondents from other countries can be done to give a wider and more global perspective on the issue. In addition, increasing the sample size should improve the generalizability of future studies. In this study only "A" class commercial bank's employees were taken as sample respondents where for further studies other financial institution like development banks, finance company and cooperative can be included. As there are many employees and customer who are in relation with those institutions. In addition, further studies can be conducted in other dimension of the businesses.

This study has established relationship between independent variable comprises of green investment, risk management, green human resource, green product/service and green business strategy and dependent variables comprises of efficiency, effectiveness and economy. Further studies can be done by incorporating various other important variables and establishing relationship among those variables.

REFERENCES

- Afroz, N. N. (2017). Green banking initiatives of Islamic bank Bangladesh limited. Global Journal of Management and Business Research, 17(1), 1-8.
- Ahmad, F., Zayed, N. M., & Harun, M. (2013). Factors behind the adoption of green banking by Bangladeshi commercial banks. ASA University Review, 7(2), 241-255.
- Arumugam, D., & Chirute, T. (2019). Factors determining the adoption of green banking amongst commercial banks in Malaysia. *Electronic Journal of Business & Management*, 50-62.
- Azam, S. (2012). Green corporate environment through green banking and green financing. *The Financial Express*. 5(4), 1154-1167.
- Bahl, D. (2012). The role of green banking in sustainable growth. *International Journal of Marketing, Financial Services & Management Research*, 1(2).
- Bhardwaj, B. R., & Malhotra, A. (2013). Green banking strategies: Sustainability through corporate entrepreneurship. *Greener Journal of Business and Management Studies*, 3(4), 180-193.
- Biswakarma, G. (2017). Sustainability and green banking practices: Understanding the strategic convergence in Nepalese banks- sem approach. *European Journal of Management*, *17*(2), 251-265.
- Chaurasia, A. (2014). Green banking practices in Indian banks. *The Journal of Management and Social Sciences, 1*(11), 41-54.
- Chen, Y. S. (2009). The drivers of green brand equity: Green brand image, green satisfaction and green trust. *Journal of Business Ethics*, *93*, 307-319.
- Deepa, P., & Karpagam, C. R. (2018). A study on customer's awareness on green banking in selected public and private sector banks with reference to Tirupur. *International Journal of Advanced Research and Development*, 3(1), 58-63.

- Deka, G. (2015). Green banking practices: A study on environmental strategies of banks with special reference to State bank of India. *Indian Journal of Commerce and Management Studies*, 6(3), 11-19.
- Faruque, M. O., Biplob, M. N. K., Al-Amin, M., & Patwary, M. S. H. (2016). Green banking and its potentiality & practice in Bangladesh. *Science Journal of Business and Management*, 4(2), 28-33.
- Ganesan, R., & Bhuvaneswari, A. (2016). Customer perception towards green banking. *Journal of Economics and Finance*, 7(5), 5-17.
- Gumbus, A. (2006). Entrepreneurs use a balanced scorecard to translate strategy into performance measures. *Journal of Small Business Management*, 40(3), 407-425
- Ilieva, J., Baron, S. and Healey, N.M. (2002). Online surveys in marketing research: Pros and cons. *International Journal of Market Research*, 44(3), 361-378.
- Institute of Development and Research in Banking Technology. (2013). *Green Banking for Indian Banking Sector*. Hyderabad: IDRBT Publication
- Iqbal, M., Nisha, N., & Raza, S. A. (2017). Customer's perceptions of green banking: examining service quality dimensions in Bangladesh. In Green Business: Concepts, Methodologies, Tools, and Applications. 1071-1090.
- Islam, A., & Kamruzzaman, M. (2015). Green banking practices in Bangladesh. IOSR Journal of Business and Management, 14(4), 37-42.
- Islam, M. S., & Das, P. C. (2013). Green banking practices in Bangladesh. IOSR Journal of Business and Management, 8(3), 39-44.
- Jain, N. (2017). Green banking: Study on customer awareness in public and private sector banks India. *International Journal of Unpublished Academic Research in Business*, 2 (1), 166-177.
- Jeucken, M. (1999). The changing environment of banks. Greener Management International Journal, 5(8), 21-37.

- Jha, N., & Bhome, S. (2013). A study of green banking trends in India. International Monthly Referred Journal of Research in Management and Technology, 2, 127-132.
- Koiry, S., Saha, J. K., Farid, M. S., Sultana, M. S., & Haque, M. S. (2017). Awareness and perception of bank customers towards green banking in Sylhet district of Bangladesh. *Asian Journal of Economics, Business and Accounting*, 5(2), 1-12.
- Love, J., & Roper, S. (2015). SME innovation, exporting and growth: A review of existing evidence. *International Small Business Journal*, 3(2), 28-48.
- Masukujjaman, M., Siwar, C., Mahmud, M., & Alam, S. S. (2015). Banker's perception on green banking-an empirical study on Islamic banks in Bangladesh. *Management & Marketing Journal*, 13(2), 296-310.
- Mehar, Laxmi. (2014). Green banking in India. *International Journal of Applied Research and Studies*, 3(7). 1-7.
- Mehedi, S., Kuddus, M. A., & Maniruzzaman, M. (2017). The identification of banker's perception toward indicators for the adoption of green banking in Bangladeshi scheduled commercial banks. *Journal of Internet Banking* and Commerce, 22(2), 2-18.
- Mehta & Sharma (2016). Customer's persistence for green banking in Nepal. Asian Journal of Research in Banking and Finance, 6(10), 30-44.
- Mitchell, V. W. (1994). Using industrial key informants: Some guidelines. Journal of the Market Research Society, 36(2), 139-144.
- Nath, V., Nayak, N., & Goel, A. (2014). Green banking practices–A review. IMPACT: International Journal of Research in Business Management, 2(4), 45-62.
- Nunnally, J.C. (1978). Psychometric Theory. New York: McGraw-Hill.
- OECD. (2017). Development Cooperation Report 2017: Data for Development. Paris: OECD Publishing

- Pariag-Maraye, N., Munusami, N. and Ansaram, K. (2017). A customer's perspective of green banking: A case study of commercial banks in Mauritus. *Theoretical Economic Letters*, 7, 1975-1985.
- Polasik, M., & Piotr Wisniewski, T. (2008). Empirical analysis of internet banking adoption in Poland. *International Journal of Bank Marketing*, 27(1), 32-52.
- Ragupathi, M., & Sujatha, S. (2015). Green banking initiatives of commercial banks in India. International Research Journal of Business and Management, 8(2), 74-81.
- Rakic, S., & Mitic, P. (2010). Green banking: Green financial products with special emphasis on retail banking products. *Proceedings of 2nd Climate Change, Economic Development, Environmental and People Conference, Slovakia.* 2(5) 54-60.
- Rauth, B. & Malhotra, P. (2015). This study on green banking strategies: Sustainability through corporate entrepreneurship. *International Journal* of Current Research and Academic Review. 19 (2), 99-133.
- Risal, N., & Joshi, S. K. (2018). Measuring green banking practices on bank's environmental performance: Empirical evidence from Kathmandu valley. *Journal of Business and Social Sciences*, 2(1), 44-56.
- Sahoo, P., & Nayak, B. P. (2007). Green banking in India. *The Indian Economic Journal*, 55(3), 82-98.
- Schultz, C. (2010). What is the meaning of green banking? *Green Banking Report*, 2(1), 127-131.
- Shampa, T. S., & Jobaid, M. I. (2017). Factors influencing customer's expectation towards green banking practices in Bangladesh. *European Journal of Business and Management*, 9(12), 140-152.
- Shantha, A. (2019). Customer's intention to use green banking products: Evidence from Srilanka. International Journal of Scientific and Research Publications, 4(2), 148-162.

- Sharma, G. (2017). An empirical study of issues and challenges in green banking in India. International Journal of Economics, Commerce & Business Management, 4(2), 419-425.
- Sharma, N., Sarika, K., & Gopal, R. (2014). A study on customer's awareness on green banking initiatives in selected public and private sector banks with special reference to Mumbai. *IOSR Journal of Economics and Finance*, 28-35.
- Shaumya, K., & Arulrajah, A. (2017). The impact of green banking practices on bank's performance: Evidence from Sri Lanka. *Journal of Finance and Bank Management*, 5(1), 77-90.
- Shayana, A., Raj, A.N., & Rai, S. (2017). A study on problems and prospects of green banking with reference to coastal regions, Karnataka, India. *International Journal of Research in Finance and Marketing*, 7(1), 141-151.
- Singh, H., & Singh, B. (2012). An effective & resourceful contribution of green banking towards Sustainability. *International Journal of Advances in Engineering Science & Technology*, 1(2), 41-45.
- Trehan, R. (2015). Green banking in India. Journal of Poverty, Investment and Development, 14, 27-32.
- Tu, T. T., & Dung, N. T. P. (2016). Factors affecting green banking practices: Exploratory factor analysis on Vietnamese banks. *Journal of Economic Development*, 24(2), 4-30.
- Uddin, M. N., & Ahmmed, M. (2018). Islamic banking and green banking for sustainable development: Evidence from Bangladesh. Al-Iqtishad Journal of Islamic Economics, 10(1), 97-114.
- Ullah, M. M. (2014). Green banking in Bangladesh: A comparative analysis. *World Review of Business Research*, *3*(4), 74-83.
- Verma, D. (2012). Green banking: A unique corporate social responsibility of Indian banks. *International Journal of Research in Commerce & Management*, 3(1), 20-26.

- Vijai, C. (2015). A study on customer's awareness on green banking initiatives in selected public and private sector banks with special reference to Cuddalore district. *International Journal of Innovative Research in Science, Engineering and Technology*, 7(11), 9362-9367.
- Vlasceanu, L., Grunberg, L., and Parlea, D. (2004). Quality Assurance and Accreditation: A Glossary of Basic Terms and Definitions, Burcharest: Paper on Higher Education.
- Webb, J. R. (2002) Understanding and Designing Market Research, London: Thomas Learning.
- Weber, O. (2017). Corporate sustainability and financial performance of Chinese banks. Sustainability Accounting, Management and Policy Journal, 8 (3), 31-47.
- World Bank. (2016). International Financial Corporation, 2016 Annual Report.Washinton, D.C. : World Bank Group.
- Worthington, A.C. (1998). Efficiency, technology and productivity change in Australian universities. *Economics of Education Review*, 27(3), 285-298.
- Yadav, R., & Pathak, G. (2013). Environmental sustainability through green banking: A study on private and public sector banks in India. OIDA International Journal of Sustainable Development, 6(8), 37-48.

APPENDIX 1

CENTRAL DEPARTMENT OF MANAGEMENT TRIBHUVAN UNIVERSITY KRITIPUR, KATHMANDU MASTERS OF BUSINESS STUDIES SPECIALIZAION ON ACCOUNT

Dear Respondent,

This is a questionnaire designed to assist the researcher to complete the academic research project on "Green Banking Practices and Perceived Financial **Performance of Nepalese Commercial Banks in Kathmandu Valley**", which is a partial fulfillment of the requirements for the award of a Master of Business Studies Specialization on Account of Tribhuvan University.

Please take a few minutes of your time to complete this questionnaire. Your honest answers will be completely anonymous, but your views, in combination with those of others are extremely important in building knowledge on the effects of green banking practices on financial performance of commercial banks in Nepal kindly answer all questions.

The researcher thanks your participation and if you have question about the research or would like to receive a copy of the abstract of the completed project, please write to Mr. Bikash Pariyar, Setidevi 06, Kathmandu, Mobile 9841174574 or email: bikashpariyar1992@ gmail.com

Therefore, attach your business card on returning of a completed questionnaire.

Part I: Personal Information

Please Mark " $\sqrt{}$ " in appropriate boxes or fill the details in the space provided.

1. Bank:

	Prabhu Bank	NMB	Bank	ABDL Bank	2					
	NIC Asia Bank	SBL B	ank	RBB Bank						
2. Job Position:										
	Manager		Assistant							
	Assistant Manager									
	Officer									

3. Gender:

Male	Female
------	--------

4. Age:

Less 20 years	20-30 Years	
30-45 years	over 45 years	

5. Educational Qualification:

Master's Level	M. Phil Level	
	 PHD Level	

6. Working Experience:

Less than 1 year	1-3 years	
3-5 years	Above 5 years	

II: Information Regarding Green Banking Practices and Perceived Performance Please Mark " $\sqrt{}$ " to show in what extent you agree with the following Statements:

S.N	Statements	Yes	No
01	My bank involves in setting up green branches (energy efficient		
	buildings/green buildings).		
02	In my bank, head office level or top management involves in		
	environmental protection related planning and implementation.		
03	My bank promotes and facilitates environmental oriented		
	enterprises through special grants, loans and guidance.		
04	My bank purchase its stationeries equipment's and other items		
	from environmental friendly companies (e g. printers, computers,		
	and etc.).		
05	My bank implements environmental (green) reward system in the		
	branches who support the green banking initiatives.		
06	My bank provides loan to environmental protection and energy		
	saving related projects?		
07	My bank has initiatives to reduce paper usage and other wastage of		
	materials?		
08	My bank provides training and education to the staff on		
	environmental protection, energy saving, and etc.		

Part III: Information Regarding Green Banking Practices

1-Strongly	2-Agree	3-Neutral	4-Disagree	5-Strongly disagree
agree				

Please Mark " $\sqrt{}$ " to show in what extent you agree with the following Statements:

a	Statements.		•			-
S.	Statements:	1	2	3	4	5
Ν						1
	Green Investment (GI)					1
01	Our bank increases the proportion of investment in environment project like					I
	solar energy. Hydropower and other similar projects.					1
02	Our bank provides reasonable interest loan (Green loan) to consumer who					
	initiate environmental project in social or individual level.					1
03	Our bank encourages investment to the economic activities that help to recover					
	environmental degradation.					1
04	Our bank encourages investment to that project which helps to prevent					
	deterioration of environment.					1
05	Our bank encourages investment to those project that are not harmful to the					
	environment.					1
	Risk Management(RM)					
01	Addressing environment issues in financial operations are a part of sound risk					
	management in our bank.					1
02	Our bank works with various national and international NGOs for insight &					
	expertise on environmental management issues and performance.					1
03	Our bank encourages projects which take care of performance and use of					
	natural renewable resource.					1
04	Our bank considers environmental risk management in business decisions.					

05	Our bank carries environmental rating of the investment proposal.			
	Green Human Resource (GHR)			
01	Our bank follows green practices (online advertisement tools, use of email,			-
	video based telephone interviews) while recruiting and selecting staffs.			
02	Our bank conduct green banking training and capacity building program for			
0.0	the employees.		 	
03	In our bank employees actively participate in the green training programs.	\square		
04	Green events like seminars, symposiums, discussion meetings etc. are conducted in our bank.			
05	Academic training and workshops on green banking. Environmental and social			
	risk management was conducted in our bank.			
	Green Product and Services (GPS)			
01	Our bank achieves lasting growth by offering sustainable financial products or			
	services.			
02	Our bank focused on green products/services as our concern for green banking			
	initiatives.			
03	Green products/services are more in demand by customers.			
04	Green products/services has low perceived financial risk.			
05	Our bank develop environment friendly product that combine social concern.			
	Green Business Strategy (GBS)			
01	Each year our bank determine a set of yearly green target.			
02	Our bank prepare necessary budget for pursuing the strategic plan in synergy			
	with green target.			
03	Our bank use online transaction (E-banking, mobile banking) for green			
	banking.			
04	Our bank provide reasonable interest loan to promote green banking.			
05	Our bank use video conferencing instead of physical movement in order to			
	promote green banking.			

Part IV: Information Regarding Perceived Performance

1-Strongly	2-Agree	3-Neutral	4-Disagree	5-Strongly disagree
agree				

Please Mark " $\sqrt{}$ " to show in what extent you agree with the following Statements:

S.	Statements	1	2	3	4	5
Ν						
	Efficiency					
01	On almost all the green banking programmes/projects activities are done the					
	same as before, but with fewer resources in term of money, staff, space etc.					
02	Green banking practices always look forward to getting out much in relation to					
	how much they put in.					
03	Green banking always ensures that in every process there is best use of					
	resources by getting it right first time.					
04	Every staff in the green banking practice endeavors to optimally use resources					
	on time in the attainment of my bank objectives, targets and tasks.					
	Effectiveness					
01	On all the green banking, programmes/projects the officers always look out the					

	impact, which is the output of all these functions either contributes to or				
	influences financial performance as a whole.				
02	There is satisfaction on all green banking programmes/projects which is				
	exhibited by how the service is perceived by both senior management and the				
	internal staff on these projects.				
03	There is a high level of modernization exhibited by the extent to which the				
	bank has adopted green banking practices that would be regarded as being				
	innovative and forward looking.				
04	4 All staff at the green banking practices strive to achieve the intended				
	results in terms of quality in accordance with the set targets and performance				
	standards for service delivery.				
	Economy				
01	The green banking practice aims at minimizing the cost of resources for all the				
	available programmes/projects.				
02	The baking pays the price that is exactly for what goes into providing green				
	service or product.				
03	The green baking practices generates cost savings on most of its procurements.				
	That is, it does less with fewer resources.				
04	The green banking takes bulk discounts by buying/procuring in large				
	quantities.				
05	In the green banking, cost is more significant than the quality of the service.				
06	In the green banking, quality of services is more significant than the costs.				
07	I always safeguard the public property/assets entrusted to me to ensure that				
	there is no damage.				
08	I always ensure that there is proper and economical utilization of public funds.				

Signature of employee

Thank You Very Much for Your Valuable Time, Cooperation, Patience and Information.