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Green Banking Practices and Profitability of Commercial Banks in Bangladesh.

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Abstract
This paper tries to identify the relationship and impact of green finance (green banking) on profitability of commercial banks in Bangladesh. In order to do that, data have been collected from secondary sources (annual reports of selected banks, Bangladesh bank and websites) of 33 commercial banks for the period from 2012 to 2019. The data which have been acquired classified, arranged to attain theobjectives. The profitability ratios, correlation and simple regression are applied to analyze data. The profitability measures are return on total assetsand return on equity. In regression analysis the green finance (green banking) has been selected as independent variable and return on total assets taken as dependent variable. The results indicate that there is a positive relationship between green finance and profitability. It is also found from regression analysis that there is a positive impact of green finance on profitability. It implies that increase in green finance will increase the return of the commercial banks in Bangladesh or vice versa. The finding will be helpful for policy making and for further research for researcher.
***Key words**: Green banking, Green finance and profitability.*

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I. Introduction

Bangladesh is one of the worst countries with global pollution through the industrialization of Western and Northeastern countries, and under such environmental threats, Bangladesh's banking sector plays a key role as positive players using businessmen, national industries to formulate their various environmental protection strategies for a sustainable environment surrounded us. Today global warming is a dangerous subject. For a global climate response, we need to change the rapid climate change that causes many problems and leaves a direct impact on biodiversity, growth, deforestation, water resources, and human health. These banking practices allow the bank to anticipate economic development that includes manufacturing, business distribution, and accounting, responsive responses in a knowledgeable environment, and reduces making the building to support for low environmental pollution and livelihoods (Rahman &Perves, 2016). Banks have a significant place in the financial system. They have a key role in disrupting production, business, economic, and development events through their funds; Exercising more power over business decisions on investments and management can impact the environment (Goel, 2016). Today, a growing number of banks are going to go green by providing new products that support environmental safety practices and help protect the environment. Such cases are called 'green banking', 'environmental banking' or 'sustainable banking' and the banks that run these events are called 'environmental bank', 'green bank' (Sahoo, &Nayak, 2007). Green Banking protects the use of paper as much as possible and relies on overhead transaction fees so we can get green credit cards and card receipts. Less application of the papers means shortening tree falling that can save the area from being a dissertation. Banking is able to build a strong as well as a positive relationship between economic development and environmental protection. Given the internal events, it can be said that the banks have not seriously affected the environment in air pollution and pollution, but their external environmental impact through their customer experiences is significant. As key users of this technology, the banks themselves are able to adopt green patterns and thus lead the way in resolving the global environmental crisis. Banks even maintain influence on the green bank as they are the sources of funding for many projects such as paper mills, cement factories, textile industries, brickyards, energy sector, etc. responsible for maximum carbon emission. Thus way they can be strict, and impose restrictions on business initiators to adopt environmentally friendly projects and socially responsible investments to ensure sustainable environmental conditions. In addition, banks can provide loans at lower interest rates and other incentives for industries to adopt green technologies that will have a lasting positive impact on the global environment (Chen, Hossen, Muzafary, & Begum, 2018).

II. Review of Literatures

Hossain (2018) has provided an overview of the green finance status of Bangladesh with a particular focus on the renewable energy sector (RES), using various descriptive statistical tools based on secondary data. The study found that building the capacity of banks and financial institutions, developing bond and stock markets, a well-coordinated policy oversight body, and mainstreaming green finance are some of the key policy issues to be addressed. Bangladesh must approach to promote green finance to achieve sustainable development.

Chen, Hossen, Muzafary& Begum (2018) have been investigated the nature of the practice of green banking, the event and various green actions taken by Bangladeshi banks to take care of environmental sustainability during 2012 so until 2017 through the utilization of secondary data. The study found that Bangladeshi banks are effective in implementing long-term practices while maintaining the precise guidelines of the Bank of Bangladesh. The survey concluded with a couple of suggestions to create green banking practices more effective by gaining experience in various research projects in developed countries.

Rahman and Perez (2016) have made efforts to highlight the systems, opportunities, difficulties and benefits of the Bank of Bangladesh's green banking policy. The research is mainly based on an extensive literature search and various secondary data. Secondary data comes from reports from the Bank of Bangladesh, various newspapers, seminars, etc. A personal interview was also conducted with a banker. The investigation showed that green banking practices in Bangladesh are not at an adequate level. The government, like any bank, must take initiatives in green banking practices to protect our environment. The central bank must supervise commercial banks, whether they are green banking or not. Therefore, every bank should participate and contribute to green banking practices in today's national and global banking competition.

Guel (2016) has examined the various green products and services available in the financial markets in India, their challenges and finally the scope of green funding in India by applying secondary data collected from secondary sources such as articles, research papers. , Annual reports, existing reports, banking sites, etc. The researcher concluded that India has great potential to create the green infrastructure needed for green funding by overcoming barriers and raising awareness among the citizens of the corporation.

Julia and Kassim (2016) examined the relationship between profitability and green financing based on the experiences of 30 sample banks in Bangladesh from 2012 to 2014, using several indicators of profitability, namely ROE(Return on equity), ROA(return on assets), AU(Asset utilization), and ROD(Return on deposit). The study found that there are significant relationships between different Bangladeshi banks such as conventional commercial banks, Islamic commercial banks, public commercial banks, and foreign commercial banks in terms of rate of return. In particular, ROA, ROD, and AU have significant positive relationships with green bank funding, while ROE did not show a significant relationship with green bank funding.

Khan, Jan & Abbas (2016) have analyzed the philosophy of Green Banking and its role in achieving Sustainable Development through Green Banking. In this study, triangulation has used alongside purposive sampling for data collection. The study has identified new themes including Green Banking practices through which Islamic banks are able to do sustainable development. The study also investigated existing practices mentioned within the literature review, including paperless banking, environmental awareness, e-banking and therefore the use of solar and wind energy. This research paper will contribute to Green Banking, its adaptation by Islamic Banks and achievement of sustainable Development.

Weber (2016) has analyzed the impact of the green bank guidelines on the sustainability performance of banks in China. The study relies on secondary data. Analyze and interpret data using multivariate analysis. The researcher has found that financial sector sustainability regulations like the green credit policy are prompting Chinese banks to integrate environmental and social issues into their business strategies, products and services.

Sahoo, Singh & Jain (2016) have stated the creation of a green banking product among customers of various age groups in India. ANOVA and post hoc experiments are applied to the analysis of objectives. The study has found that there's a significant difference within the use of green bank products in several age groups, as young people tend to use green bank products over the medium and older ones. Therefore, more mobilization is required within the middle and socio-economic class.

Lalon (2015) has focused on the Green Banking movement of commercial banks in Bangladesh. The study also finds out why these policies are implemented and makes a comparison with the practices of the green banking of commercial banks as well. The analysis is based on secondary data from Bangladesh banks and commercial banks in Bangladesh. Researchers have found that authorities should be aware of and update current green bank operations and developments. Green Banking is now not only a campaign but also an application.

Ullah (2014) has analyzed the results and prospects of green banking and identified obstacles on the way to a green economy in Bangladesh. The study is based on both primary and secondary data. Various descriptive statistical tools, graphs, tables, etc. were used to analyze and interpret data. The study found that policy initiatives for green banking are numerous; appropriate policies for everyone, weak enforcement of environmental laws, and the unpreparedness of banks, market imperfections, and ignorant customers are the biggest obstacles to green banking. The coordinated efforts of the Bank of Bangladesh, banks, government, consumers, and pressure groups are essential to achieving the vision of the green economy in Bangladesh.

Okumu (2014) has established whether there's a link between green banking and therefore the success of commercial banks in Kenya. Researcher has used secondary data from the central bank of Kenya, the Communications Authority of Kenya and also the National Bureau of Statistics in Kenya by analyzing the multivariate analysis. The study found that there's a significant relationship between green banking and therefore the success of commercial banks in Kenya. Therefore, the study concluded that the management of commercial banks should be concerned with the green bank because it is vital in determining the effectiveness of the currency.

Nath, Nayak&Goel (2014) have been highlighted the green rating standards given by RBI, the environmental and social norms of the World Bank, the initiatives taken by public and private sector banks in India to adopt green banking methods, and enlist significant strategies for adopting green banking. This article reviews the literature based on secondary data collected from sources such as articles, research papers, annual reports, existing reports, company official websites, etc. The study found that green banks are in operating mode in India. They need to expand the use of environmental information in business activities, credit extension and investment decisions. The effort will help them proactively improve their environmental performance and create long-term values for their business.

Chaurasia (2014) has examined to highlight the main benefits, challenges, and strategic aspects of green banking in India using secondary data. The researcher found that Indian banks have not taken many initiatives in this regard, despite playing an active role in the emerging Indian economy. Banks should become green and play an active role in integrating environmental and environmental aspects into their lending rules, which would force the industry to opt for mandatory investment in environmental management, use of technology, and proper management systems.

Rahman, Ahsan, Hossain, and Hoq (2013) have discussed the prospects for green banking in Bangladesh. The study relies heavily on secondary data collected from several reliable sources. The study found that a change in investment management, a change in deposit management, a change in management, a change in the recruitment and human capital development process, corporate social responsibility (CSR), and awareness among customers and the masses also provide a safe home for the next generation. Bangladesh bank has already issued circulars on the subject. Banks have already been asked to develop their own green banking policy.

Sahoo&Nayak (2007) have explored the importance of Green Banking, an area of international experience and highlights important lessons in sustainable banking and development in India. The study is predicated on content analysis. The study found that banks and other financial institutions in India haven't made much progress during this regard despite their active participation in India's emerging economy. Therefore, the researchers suggested that there are possible policy measures and initiatives to push green banking in India.

III. Objectives of the study

The main objective of the present study is to observe the relationship between green finance and profit ability.
The specific objectives are as follows

- **i.** Identify the relationship between green finance and profitability
- **ii.** Measuring impact of green banking on profitability
- **iii.** Give some suggestions for improvement in sustainable finance.

IV. Hypothesis of the study

Hypothesis the current research are drawn on the basis of previous studies and specific objectives are as follows

i. $\mathbf{H_0}$: There is no relationship between green finance and profitability

$\mathbf{H_a}$: There is a relationship between green finance and profitability

ii. $\mathbf{H_0}$: Green finance has no impact on profitability

Ha :Green finance has an impact on profitability

V. Methodology

In order to investigate the relationship and impact of green finance on profitability secondary data of 33 commercial banks in Bangladesh have been selected for study. The data of these banks have collected for the period of 8 years from 2012 to 2019 from the annual reports of respective commercial banks,Bangladesh bank and their websites. The secondary data were tabulated and categorized as per requirement. The data analyzed by profitability measures and statistical tools correlation and simple regression. In regression model the return on total assets has been selected dependent variable and amount of green finance taken as independent variable. Regressionanalysis has been applied to identify the effect ofgreen finance on profitability. Correlation analysis is used to identify the relationship between variables. The SPSS-21 has been used for data analysis. Regression model is

$$ROA_{it} = \beta_0 + \beta_1 GF_{it} + e_{it} \quad (1)$$

Where

ROA= return on total assets

GF=Green finance for i firm in time t

e_{it}=error term

VI. Result and Discussion

6.1 Correlation analysis

The following table-1 shows correlation analysis result of green finance and profitability. The correlation between return on total assets (ROA) and green finance (GF) is 0.869 and statistically significant which indicates that there is positive relationship between green finance and profitability of commercial banks in Bangladesh. It confirms the alternative hypothesis (H_a), 1, i.e. statistically significant positive relationships exists and green finance and profitability. The table also exhibits, there is statistically significant positive relationships exists and green finance (GF) and return on equity (ROE). It implies that there is a positive relationship exists green finance and profitability.

Table-1: Correlation Matrix

		GF	ROA	ROE
GF	Pearson Correlation	1	*	
	Sig. (2-tailed)			
ROA	Pearson Correlation	.863**	1	
	Sig. (2-tailed)	.006		
ROE	Pearson Correlation	.923**	.982**	1
	Sig. (2-tailed)	.001	.000	
**. Correlation is significant at the 0.01 level (2-tailed).				

Source : SPSS-21 output from authors compilation of data from 2012 to 2019

6.2 Regression results

The following tables show the empirical result of regression analysis. Regression analysis used to identify the impact of green finance on profitability. Here return on total asset is dependent variable and green finance as independent variable. The Table-2 exhibits the model is significant.The r^2 of the model is 74.5 percent it means that 74.5 of variations of the profitability are explained by the variable green financing. The table-3 explains that a positive coefficient of green finance which is statistically significant. This also confirms the alternative hypothesis number 2. The regressions results determine that green finance have positive impact on profitability.This infers increment in green finance will increase profitability.

Table-2: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.863[a]	.745	.703	.12503	17.53	.006
a. Predictors: (Constant), GF						

Table-3: Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.282	.090		3.137	.020
	GF	1.013E-006	.000	.863	4.187	.006
a. Dependent Variable: ROA						

Source: SPSS-21 output from authors compilation of data from 2012 to 2019

VII. Findings and conclusion

This study is an investigation of relationship and impact of green finance on profitability of commercial banks in Bangladesh. Here performance variable is the return on total asset and green finance is total amount of finance in green projects as directed by Bangladesh bank. The empirical results indicate that there is a positive relationship between green finance and profitability.It is also found from regression analysis that there is a positive impact of green finance on profitability.It implies that increase in green finance will increase the return of the commercial banks in Bangladesh or vice versa.The Bangladesh bank have taken several initiative to reduce paper uses, in-house green practices , environment improvement through green projects for sustainable development of banking industry and country.

References:

[1]. Ullah, M. S. (2014). Green Banking in Bangladesh: Progress, Problems and Prospects. *NIBM, Prajnan*, *43*(1).

[2]. Rahman, F., &Perves, M. M. (2016). Green Banking Activities in Bangladesh: An Analysis and Summary of Initiatives of Bangladesh Bank. *Research Journal of Finance and Accounting*, *7*(10), 6-7.

[3]. Goel, P. (2016). Green finance: A step towards sustainable financial system. *Abhinav International Monthly Refereed Journal of Research in Management & Technology*, *5*(3), 22-31.

[4]. Nath, V., Nayak, N., &Goel, A. (2014). Green banking practices–A review. *IMPACT: International Journal of Research in Business Management (IMPACT: IJRBM) Vol*, *2*, 45-62.

[5]. Julia, T., &Kassim, S. (2016). Green financing and bank profitability: empirical evidence from the banking sector in Bangladesh. *Al-Shajarah: Journal of the International Institute of Islamic Thought and Civilization (ISTAC)*, *21*(3).

[6]. Chaurasia, A. K. (2014). Green banking practices in Indian banks. *The Journal of Management and Social Science*, *1*(1), 41-54.

[7]. Hossain, M. (2018). *Green finance in Bangladesh: Policies, institutions, and challenges* (No. 892). ADBI Working Paper Series.

[8]. Rahman, M., Ahsan, M., Hossain, M., &Hoq, M. (2013). Green banking prospects in Bangladesh. *Ali and Hossain, Md. Motaher and Hoq, Meem, Green Banking Prospects in Bangladesh (June 2, 2013). Asian Business Review*, *2*(2).

[9]. Sahoo, B. P., Singh, A., & Jain, N. (2016). Green Banking In India: Problems And Prospects. *International Journal of Research-Granthaalayah*, *4*(8), 92-99.

[10]. Lalon, R. M. (2015). Green banking: Going green. *International Journal of Economics, finance and management sciences*, *3*(1), 34-42.

[11]. Chen, Z., Hossen, M. M., Muzafary, S. S., & Begum, M. (2018). Green banking for environmental sustainability-present status and future agenda: Experience from Bangladesh. *Asian Economic and Financial Review*, *8*(5), 571.

[12]. Sahoo, P., &Nayak, B. P. (2007). Green banking in India. *The Indian Economic Journal*, *55*(3), 82-98.

[13]. Okumu, B. A. (2014). *The relationship between green banking and financial performance of commercial banks in Kenya* (Doctoral dissertation, University of Nairobi).

[14]. Khan, S. S., Jan, S. U., & Abbas, B. (2016). Green Banking: With Reference to Sustainable Development. *Asian Journal of Islamic Finance*, *1*(1).

[15]. Park, H., & Kim, J. D. (2020). Transition towards green banking: role of financial regulators and financial institutions. *Asian Journal of Sustainability and Social Responsibility*, *5*(1), 1-25.

[16]. Weber, O. (2016). The Impact of Green Banking Guidelines on the Sustainability Performance of Banks: The Chinese Case.

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