



**AN APPRAISAL ON THE PERFORMANCE OF  
BANKS OFFERING GREEN FINANCING IN  
BANGLADESH**

**BY**

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**A dissertation submitted in fulfilment of the  
requirement for the degree of Master of Science in  
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## **ABSTRACT**

Environmental degradation has been identified to be one of the major impediments for the development of Bangladesh. Apart from facing power or energy crisis, World Health Organization has also classified Bangladesh to be in the fourth position among the polluted countries in the world. Faced with this challenge, the government of Bangladesh introduced the Green Financing Policy, and encourages banks to participate in offering green financing to promote environmental-friendly for substantial economic development. Being recently introduced, this paper mainly aims to examine how this policy has change the way banks in Bangladesh carry out their financing businesses. Specifically with three research objectives, this research firstly examines the relation of profitability with green financing on 30 sample banks for 2012, 2013 and 2014 by using one way ANOVA as well as Pearson correlations and finds that the result varies among the commercial banks, Islamic commercial banks, state owned commercial banks and foreign commercial banks. Secondly, this research critically evaluates whether the policies of green financing are Shariah compliant; by examining it against the main sources of Shariah (Al-Quran and Hadith). The finding suggests that the major aspects of green financing are very much in line with Shariah principles. Finally the paper aimed to examine how far the banks in Bangladesh have been adopting the green policy in order to assess the future of green financing and sustainability development for Bangladesh. Being one of the first few to critically examine green finance from the perspectives of both conventional and Islamic banks, this research is believed to be beneficial for the industry and policy makers in the effort to evaluate the role and contribution of banks in addressing the main environmental issues in Bangladesh. In addition to that, through meticulous examination on the adherence of the current green policy with the Shariah principles, this research is also expected to be the one of the blueprints to encourage Islamic banks and financing institutions in Bangladesh to be more involved green financing, in order to attain both prosperity in this world and hereafter.

## ملخص البحث

تم تحديد التدهور البيئي باعتباره أحد أكبر العقبات الرئيسية لتطوير بنغلاديش. بصرف النظر عن مواجهة القوة أو أزمات الطاقة ، فإن منظمة الصحة العالمية أيضا قد صنفت بنغلاديش باعتبارها واحدة من أكثر الدول تلوثا في العالم، حيث احتلت المركز الرابع. ولمواجهة هذا التحدي، فقد استحدثت حكومة بنغلاديش سياسة التمويل الأخضر، كما قامت بتشجيع البنوك على المشاركة في تقديم التمويل الأخضر اللازم لتعزيز فكرة صداقة البيئة من أجل تنمية اقتصادية كبرى. ونظرا لكون هذه السياسة تم استحداثها مؤخرا، فإن هذا البحث يهدف أساسا لدراسة كيفية إمكانية هذه السياسة لتغيير طريقة البنوك في بنغلاديش لتنفيذ أعمالها التمويلية. لهذا البحث ثلاثة أهداف محددة، فهو أولا يدرس علاقة تحقيق الأرباح عن طريق التمويل الأخضر لدى عينة تتكون من 30 مصرفا خلال الأعوام 2012 و 2013 و 2014 باستخدام تحليل التباين في اتجاه واحد (One-way ANOVA)، وكذلك ارتباطات بيرسون، ووجد أن النتيجة تختلف بين البنوك التجارية، والمصارف الإسلامية التجارية، والمصارف التجارية المملوكة للدولة، والبنوك التجارية الأجنبية. ثانيا يهدف هذا البحث إلى تقييم حاسم لمعرفة ما إذا كانت سياسات التمويل الأخضر متوافقة مع أحكام الشريعة الإسلامية وذلك من خلال فحصها بمقابلتها بمصادر الشريعة الأساسية؛ القرآن الكريم والحديث الشريف. أشارت النتائج إلى أن الجوانب الرئيسية للتمويل الأخضر منسجمة إلى حد كبير مع مبادئ الشريعة الإسلامية. وأخيرا هدف البحث إلى فحص مدى تبنى واعتماد البنوك في بنغلاديش سياسة الخضراء من أجل تقييم مستقبل التمويل الأخضر، واستمرارية التنمية في بنغلاديش. كون هذه الدراسة واحدة من أول البحوث القليلة التي تدرس بدقة التمويل الأخضر من وجهة نظر البنوك التقليدية والإسلامية على حد سواء، فمن المعتقد أن يكون هذا البحث مفيدا للصناعة، وصناع النظام في محاولة لتقييم دور ومساهمة البنوك في معالجة القضايا البيئية الرئيسية في بنغلاديش. بالإضافة إلى ذلك، فمن المتوقع لهذا البحث من خلال دراسة دقيقة للالتزام بسياسة الخضراء الحالية مع مبادئ الشريعة الإسلامية أن يكون واحدا من المخططات لتشجيع البنوك الإسلامية والمؤسسات المالية في بنغلاديش على أن تكون أكثر انخراطا في التمويل الأخضر من أجل تحقيق الازدهار في كل من الدنيا والآخرة.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion; it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Science in Islamic Banking and Finance.

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Khaliq Ahmad  
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*I dedicate this dissertation to my loving mother and husband who always supported me in every endeavor and because of them I am what I'm today*

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## LIST OF ABBREVIATION

AIBL	Al-Arafah Islamic Bank Ltd
ATM	Automated Teller Machine
BA	Bank Asia Ltd
BB	Bangladesh Bank
BRAC	Bangladesh Rural Advancements Committee
CAMEL	Capital Asset Management Efficiency Liquidity rating
CAR	Capital Adequacy Ratio
CCBs	Conventional Commercial Banks
CDM	Clean Development Mechanism
CFL	Compact Fluorescent Lamp
CRM	Credit Risk Management
CSR	Corporate Social Responsibility
DBBL	Dutch Bangla Bank Ltd
DFI	Direct Foreign Investment
EBL	Eastern Bank Ltd
EDD	Environmental Due Diligence
EnvRR	Environmental Risk Rating
ETP	Effluent Treatment Plant
EXIM	Export Import Bank Ltd
FCBs	Foreign Commercial Banks
GF	Green Financing
GFL	Green Financing Utilized
GRI	Global Reporting Initiatives
IBBL	Islamic Bank Bangladesh Ltd
ICBs	Islamic Conventional Banks
LED	Light Emitting Diodes
NBFIs	Non Bank Financial Institutions
PBL	Prime Bank Ltd
PCBs	Private Commercial Banks
Pubh	Peach be upon Him
ROA	Return on Asset
ROE	Return on Equity
SCBs	State Owned Commercial Banks
SIBL	Social Islamic Bank Ltd
SJIBL	Shahajalal Islamic Bank Ltd
SPSS	Statistical Package for Social Science
SRCC	Socially Responsible Corporate Citizens
SWT	SubhanAllah Talah
WHO	World Health Organization

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 BACKGROUND OF THE STUDY**

This is an epoch of development and globalization that has brought a lot of comfort and luxury to human life however it has also led to a distressing situation by huge ecological degradation combined with all the involved activities. Generally, current world economy is facing huge challenge to deal with the environmental difficulties and their related influences in day to day businesses operations. Along with business firms, consumers and general public are now very aware about the importance of environment. Consumer demand has influenced business organizations to modify business activities and strategies so as to ensure protection of natural resources and environment. In his regard, financial sector especially banks can play an important role in encouraging ecological sustainability which is one of the most important factors driving the policy making process of the business community (Tara, Singh, & Kumar, 2015). Nevertheless, through coordinated efforts from the government, private sector, and individuals the environmental degradation situation can only be improved. Now a days, banks and financial institutions are supporting and supplementing these efforts aimed at a greener environment in a greater way. To keep pace with other, Bangladesh Bank, the central bank of Bangladesh has recently introduced green banking policy and governance and fostering the implementation of it by all financial institutions and banks giving high priority for the sustainable growth of the economy.

Green finance is an observable fact which brings together both the world of finance and business with ecologically friendly behavior. Green finance and Green



Banking has made a great contribution to the transition to resource-efficient and low carbon industries (Bahl, 2012). Banks can affect production, business and other economic activities through their financing activities by holding a unique position in an economic system. Furthermore, large banks are currently very concern about energy and water efficiency and waste reduction. Green banks or environmentally responsible banks affect socially responsible behavior of other business while improving their own standard. The central bank of Bangladesh is also very concern about the country environmental condition and to protect environmental dilapidation and to ensure sustainable banking practices it has created comprehensive policy guidelines for green banking in three phrases where each phrase has its time limit ending up at December 2013 (Circular, 2011, February). Green financing now has supply side stress because of Bangladesh Bank initiatives and regulatory pressure, on the other way Islamic product has demand side stress as majority (90.4%) people of Bangladesh are Muslim. Islamic Banking are doing good business there, the 25.85% growth of Islamic Bank deposit in 2013 over 20.58% deposit in conventional proves the demand of Islamic product in Bangladesh market. Moreover, Islamic banks market share are slightly less than 20% of the overall banking sector of Bangladesh (BB Stability Report, 2014).

Bangladesh operates in a dual financial system where both conventional and Islamic banks are operating together in same market. Conventional banks' lending and borrowing are interest based whereas Islamic banks in Bangladesh are financing based on Shariah ruling without charging interest and investing based on profit- loss sharing basis such a ruling, that had been practiced by our Prophet Muhammad (Peace be upon him) himself. Islam believes in risk sharing in partnership business, wants to establish justice and fairness in every dealings which would be free from uncertainty,

gambling, manipulation but full of transparency, trust, just and fair treatments. Islam also discourage doing business with prohibited goods. Majority people of Bangladesh being Muslim, naturally they feel the need of Islamic product in all their transactions and by the legal support of Bangladesh government Islamic banks are performing very well.

Green financing which is comparatively a new trend in financing is initially based on conventional basis. The main concern of green finance is sustainability which is also an important feature of Islamic finance. Bangladesh government's circular of policy and guidelines on green finance is increasing supply side pressure for the loan or financing. In contrary, people of Bangladesh have desire for Islamic product to protect themselves both here and hereafter from natural disaster and hellfire. Therefore, in order to bridge this gap of demand and supply of financing this paper wants to represent the current status of Islamic banks of Bangladesh in offering green banking products and also to show the relationship between profitability of banks with green financing as a measure of performance evaluation of banks considering the mode of financing as a factor. However, ultimate aim of the paper is to describe that Islamic banks of Bangladesh can play significant role in green financing as policies of green financing is *Shariah* complaint like as the overall activities of Islamic Banks; hence, Islamic banks can play greater role for the sustainable growth of the economy compare to other counterpart just by concentrating more on equity based financing and setting profit rate on the principle of *'iwad* (equivalent counter value) (Rosly, 2005) (Rosly & Zaini, 2008). Based on an exploratory study, this paper is going to serve as a blueprint to the policy makers on the benefit of Green finance under the responsible banking banner that detail out measures on how to revisit and revitalize the conversion of the financial markets and institutions from Green finance

to Green Islamic Finance. It is also hoped this paper will serve as the main reference for the industry players as well as the general public on green economics and finance particularly in Bangladesh.

## **1.2 THE PURPOSE OF STUDY**

One of the important purposes of this study is to critically evaluate the *Shariah* legitimacy of green financing as well as to examine greater role that Islamic banks can play in green financing compare to conventional counterpart in Bangladesh where sustainable growth of the economic and eradicating the environmental contamination is a high concern. It is important to highlight that Dhaka; the capital of Bangladesh is not only vulnerable to catastrophes but is also classified as one of the top dirtiest cities of the world according to World Health Organization (WHO, 2014). With the main aim of the Bangladesh Government to mitigate the environmental challenges, the conventional green financing has become one of the preferred options. Several actions with regard to the establishment of specific rules and regulations together with measures to encourage people towards green financing have been undertaken. Nevertheless, some glaring issues have been observed whereby the majority of the Bangladesh citizens possess the desire to Islamic finance. Hence, to bridge this gap, the paper aims to compare performances between Islamic banks and conventional banks based on the green offerings and establish the fact that Islamic banks can play greater role for the sustainable growth of economy by proving the *Shariah* compliance of the green policies and guidelines according to the main sources of *Shariah- Quran and Sunnah*.

### **1.3 STATEMENT OF THE PROBLEM**

Today world is competitive so global business environment and businesses are facing increased competition along with regulatory and community pressures. Furthermore, environmental sustainability is another new issue, which requires best strategies to reduce the environmental impacts caused by the products and services offered. According to a report published by British risk consultancy Maplecroft, Asian countries are in the riskiest position to catastrophes and Bangladesh is at the top of the list considered to be at "extreme" risk (Daily Star, 2013). Bangladesh is not only geographically vulnerable but also is in fourth position among polluted countries in the world. Within Bangladeshi cities- Dhaka, N'ganj, Gazipur are positioned among top 25 worst cities of the world listed by World Health Organization (WHO, 2014). Government of Bangladesh is also very concern regarding the issue and has amended law as well as create regulation and guidelines of green financing also made it inevitable for all financial institutions to do green financing for the sustainable development of the country and for lessening impact of environment pollution. As the term "Green" means an extensive range of social, ethical and environmental scopes. Usually, "Green banking" refers to the exertions of the Banking sector through justifying their strategies, policy, decisions and activities relating to banking service, business and in-house operational activities to retain the environment green and to lessen greenhouse effects (Islam, 2012). According to Candice Stevens sustainable development incorporates three scopes of welfare - economic, environmental and social. Although the main focus of Green Banking policy is social and environmental development. However, another outstanding issue is that given the majority Bangladeshi are Muslim, there is a great need for Islamic financial service offered by financial institutions. Moreover, according to the central bank report

Islamic banking are doing very good business and their growth of deposits is higher than in conventional banks, in 2013. Though there is increasing demand of Islamic products as well as inevitability of green financing but majority banks are considering green banking as conventional stream of financing. With fact, this paper wants to emphasize on current performances of Islamic banking in offering green financing as well wishes to examine the contribution of Islamic banks to the sustainable growth through case study and analyzing the mode of financing particularly on green services and products in comparison to their conventional counterpart. Without few exceptions most of the green policies are in line with *Shariah* so, this research will recognizes *shariah* relevance of green banking policy and guideline of Bangladesh and provide green solution by proving the higher role of Islamic banks of the country.

#### **1.4 RESEARCH OBJECTIVE**

The main objective of the paper is to establish the fact that Islamic banks can play greater role for the sustainable growth of the economy through successful implementation of green banking. The specific research objectives are -

1. To examine whether there is any relation between profitability ratios and green financing in banks of Bangladesh.
2. To critically evaluate the *Shariah* compliancy of green policies and guidelines of Bangladesh in light of main sources of *Shariah*.
3. To represent the participation of banks in Bangladesh right after the introduction of the guidelines on green financing.

## **1.5 RESEARCH QUESTIONS**

1. Are there any relation between the profitability and green financing offerings of banks in Bangladesh?
2. Are the Green Policies and Guidelines of green financing *Shariah* compliance as practiced by the Islamic Banks?
3. What is the current status of banks in green offerings after introduction of the guideline on green financing in Bangladesh?

## **1.6 SIGNIFICANCE OF THE STUDY**

This study is expecting to contribute generally in the literature of Islamic Finance. Especially this study aims to contribute to severe aspects as outlined below:

### **Contribution to Academician**

While having a look at the preliminary literature in green banking and finance in Bangladesh, it is possible to say that there is lack of literature in this field of study as it is a recent inclusion in financial system of Bangladesh. It is therefore hoped that this research paper will be an addition to the literature and will create a field for further research on the topic.

### **Contribution to Government**

Sustainable development is a significant agenda of Bangladesh government, which involve processes those are comprehensive and environment friendly and equally benefit all population segments of the society. Therefore, Bangladesh Bank (BB) has already amended regulation and set guidelines to pursue green financing as inclusive and ecologically responsive in the financial sector, under the title of 'socially

responsible' financing. The new literature will be contributing to the government by providing new insightful thought and ideas to create regulations and guidelines for accelerating the green growth in the regime financing.

### **Contribution to Banks**

The primary objective of banking institutions is to maximize profitability. Islamic finance is a relatively new avenue which is proving to be very successful as well in other countries whether it pertains to the Islamic banking industry or the Islamic capital market (Hall, 2012). Identifying the needs of consumers in relation to Islamic finance, bankers can recognize which Islamic product would suit their customers and which ones can attract new customers as well as meet the need of green financing according to the rulings of central bank. While adopting green finance, Islamic banks in Bangladesh will find a new area to invest as well as get the opportunity to innovate new product which will serve the dual purpose whereby they can also diversify their portfolios and take advantage of the revenue generated from Islamic finance.

### **Contribution to Consumer**

The majority consumers' in Bangladesh being Muslim, they have deep feeling to Islamic products which prove the recent statistics that Islamic banking covers almost 25 per cent of total banking sector market share. Moreover, according to Bangladesh Bank, growth of deposits is more in Islamic banks than in conventional. So it is presumable that green Islamic finance will be getting high preference over other kind of financing to Bangladeshi consumers. Moreover, green products and financing will serve the purpose of reducing environment pollution which is also a high demanding issue to Bangladeshi consumers. The wide spread use of green Islamic products will

provide high level of satisfaction to the users also will make them aware about the fact that shariah and environmental financing is not only interrelated but also inevitable to coexist for the betterment of next generation.

## **1.7 ORGANIZATION OF THE STUDY**

This paper has been organized as follows. The first chapter covers - background of studies, purpose of study, problem statement, research objectives, research questions and significance of research. The second chapter focuses on what is green banking and finance, what is sustainable development, discusses about the areas of green financing, Islamic bank mode of financing along with a case study to justify the mode of Islamic bank's financing, also explains the green banking policy and guideline in Bangladesh. Moreover, this chapter tries to link green financing with *Maquasid -al- Shariah* and gives the general overview about ten banks of Bangladesh which have been chosen to compare the green performances of banks. Chapter three provides idea about the precious researches that have been done related to green banking, conceptual and operational differences of conventional and Islamic banks, represents performance appraisal techniques applied by different researchers to evaluate banks performances, represents previous work that shows link between profitability and eco-friendly performances of banks and firms, briefly illustrates the theory of profit from Islamic perspectives and discusses Islamic bank's current status of green banking in Bangladesh. Chapter four describes the methodology and data that are being used in order to get the results and limitations of the studies. Chapter five headed by research findings and discussion, analyzes the green performance of banks and compares the overall performances of all private commercial banks as well as within the sample banks tries to show the risk- return analysis of both ICBs and CCBs, describes the