

Green Bank: International Experiences and Vietnam Perspectives

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Received: November 13, 2015 Accepted: November 22, 2015 Online Published: November 26, 2015

doi:10.5539/ass.v11n28p188

URL: <http://dx.doi.org/10.5539/ass.v11n28p188>

Abstract

Green Bank is a new concept that has been known in recent years, particularly for developing countries including Vietnam, because the requirements of environmental protection are trade-offs to achieve economic growth and development. Hence, it is generally accepted that the green bank is a model for banking in the future when it balances the benefits and cost between economic and environment of all stakeholders in the banking activities. This paper is an overview the new concept about green bank and the benefits of those to environment and economic. Then, it shows the international experiences from developed and developing countries. The lessons learnt withdraw will be useful for implementing in Vietnam, including: (i) enhancing the awareness of green banking of bank leaders, (ii) encouraging firms to make green investment to create green financing demand, (iii) developing the legal framework to encourage banks providing green finance.

Keywords: green bank, green finance, green growth

1. Introduction

After nearly 25 years since international integration, Vietnam's economic has been particularly recognized as one of the most successful developing countries in the world. However, Vietnam also has faced the danger of environment including biodiversity loss, deforestation, air pollution or GHG emission. Therefore, the achievements of economic are under threat in recent years due to climate change and at risk of being reversed if the worst scenario occurs. The Vietnamese government has responded by developing the Vietnam Green Growth Strategy (VGGs). (Prime Minister Decision No 1393/QĐ-TTĐ). Approved in September 2012, the VGGs aims at increasing the resource-efficiency of the economy, and increase sustainability while achieving development and economic objectives. Vietnamese government also built Vietnam Green Growth Action Plan (VGGAP) in 2014. In particular, green finance and green bank are one of the parts of green growth, but this concept is still not popular to the financial sector - banks today (SBI, July 2010).

It is generally accepted that the cost to make a green growth strategy is relatively high. According Vietnam Ministry of Planning and Investment report, the expected number is about 30 million US dollar as totally 35 variety activities. Therefore, it is not only relied on state budget, the participation of the private sectors as investor and recipients also are being directed to the success of strategy. Although the banking sector is considered friendly to environment and have not more impact to nature environment through their internal activities, the external activities on the environment has more impact through their customer activities. An example is the banks have been approved the financing projects such as steel, paper, cement chemicals, etc., which have many negative impact to environment. Therefore, the banking sector could play an intermediary role to control their projects to have better environmental effect. On the other hand, even though, banking system is not a polluting industry, the present scale of in-house banking activities have considerably increased the carbon footprint of banks including their massive use of energy, high paper waste or lack of green building. It is undeniable that banking operations should adopt modern technology and process that have more friendly to environment. Shortly, Green Banking will emphasize a main resource to implement those.

In many countries, the definition of Green Bank is still a new concept. According UN ESCAP, "Green Bank" implies the operations of banks, incentives for environmental activities and reduces carbon emissions, such as: encouraging customers to use green products, services; imposing environmental standards when approved loan or grant preferential credits for projects that reduce CO₂, renewable energy... Other definition, Green Bank works like a traditional bank and provide superior service for investors and customers while implementing

programs useful to the community and the environment. The green bank is not a pure business operation for corporate social responsibility (CSR), also not entirely pure business for profit; it is a new combination to ensure the harmonious and sustainable about the economy - environment - society. (SOGESID). Therefore, the concept will have different beneficial to both of the banks, industries and the economy, especially with an emerging market like Vietnam.

The main objective of this paper is to build a general knowledge of Green Bank and the benefit of those to separate part of economic. We also tried to overview variety international case studies including successful and unsuccessful about this concept, and suggest to Vietnam perspective.

The paper consists of four main components: (i) introduction; (ii) literature review (iii) successful experience in Green Bank some countries and suggestion for Vietnam, and finally; (iv) the conclusions.

2. Methodology

This paper reviews the literature on the previous researches on green banking and green bank model. Case studies research of developing and developed countries are used to withdraw the best practices in green banking. Some in-depth interviews with bank leaders in Vietnam are also conducted to obtain the ideas and personal perspectives on difficulties and opportunities for Vietnamese bank when developing green banking activities. These will help the authors to have an independent analysis point of view and arguments in the papers.

3. Literature Review

Green Banking is the new form of banking toward to protect environment activities and sustainable development. The banking sector is an intermediary role between economic development and environment protection through their activities. This concept was formally developed in some countries in 2003 with the vision to protect the environment. Then some of leading banks such as Citigroup Inc., The Royal Bank of Scotland, Wespac Banking Corporation were accepted the Equator Principles-a risk management framework which is adopted by financial institutions, especially banking, for determining, assessing and managing environmental and social risk in projects. Now, the concept appeared in many countries' policies and has an impact to both of economic and environment.

World Bank also had the publication Environmental & Social (E&S) norms for financial institutions including commercial banks, investment funds and leasing companies, to define their role on the environmental impact. These norms provided for financial institution an overview about environmental and social risks or opportunities. Those also gave an Environmental and Social Management System (ESMS) for the institution to outline the way to protect environment. The principles are including (Note 1):

- E&S Policy and Objective
- Transaction Screening and Risk Categorization
- E&S Due Diligence (ESD) and Corrective Action Plans
- E&S Covenants
- Monitoring E&S Performance
- Supporting Tool, Systems and Organizations
- Roles, Responsibilities and Capacity Building

3.1 Green Bank Model

In a study of the green banking model and socially responsible, Kaeufer (2010) gave model of Green Bank with 5 levels:

Level 1: Unfocused corporate activities

Implement the sub operations by sponsoring for the green events and join public works (most banks are at this level)

Level 2: Isolated business projects or business practices

Separation project development and operations, in which banks have further development of green products and services separately (only a small percentage) added to the list of traditional banking products

Level 3: Systemic business practices

Business operation system, in which most of the processes and products are compliant banking principles "green", the banks' organizational structure is designed to support impact "green" in the sense of 4: people,

processes, principles and purposes

Level 4: Strategic ecosystem innovation

Actively balance strategic ecosystems, green banking activities are not limited in the scope of a single business that is expanding the network, alliance, community dialogue, or the whole ecosystem to achieve sustainability of factors: social, environmental and financial

Level 5: International (purpose-driven) eco-system innovation

Initiative balance ecosystem initiative, in which the banks operate similar green as level 4 but is done in an active, purposeful, rather than a response to external changes such as strategic initiatives at level 4. In this level, the green bank is like a "hybrid" company that has not the "avoiding a negative scenario" purpose but implying the main challenges throughout changing at the level of the whole eco-system.

The bank's activities include extensive green from savings the use of paper in banks and customers, apply online banking, reducing the number of branches, offices to the application of environmental standards when approved loan or grant preferential credits for CO2 reduction projects, projects on renewable energy... (Kaeufer, 2010). Green Bank is not only influential in the financial sector but also to other sectors such as the environment, society, education - employment, information technology...

3.2 The Benefit of Green Bank

A "Green Bank" widely influential in many areas of life, ensuring sustainable development of three factors: economic, environment, society and can bring about the following benefits (Note 2):

- Online banking, which saves energy and resources

Online bill payment, online transfers, online account management, receive account statements over the Internet, the sale of certificates of deposit ... just one of the ways that an online bank helps reducing paper usage, reducing the time and travelling; saving natural resources consumed over the banking operations. Customers can save money from the use of banking services through email, message or website. Even customers can transfer money directly from private - to - private (P2P). The banks may cost savings from reduced paperwork, reduced office and branches, build buildings saving more energy; reduce the complex procedures and focus of human resources for the important part.

- Use green payment account

Open a green payment account to help protect the environment by using more online bank services (e.g.: paying bills, credit cards, account statements, free ATM use, security with a message.). The green payment account should be entitled for higher interest rates and more flexible if they meet certain requirements monthly, because the banks can reduce their costs when customers use green services.

The account will include services for mobile banking. The ability to check the master account at any time, transfer or pay bills anywhere is the superiorities of a green bank. Mobile Banking is a better security system than the conventional way. The use of the mobile banking sector has turned the telephone companies; telecommunications companies become part of the financial system, not only security but also contribute information during data transmission. Thus, banks have pulled the green companies for information technology in their operations, contributing significantly to business and human attraction of that area.

- Green banking and electronic banking

Prior to the Internet explosion that extended the reach of services outside the organization using ICTs, banking services were delivered using traditional brick and mortar structures and intra-organizational technology applications in a bid to reduce operational costs and increase revenues (Furst et al., 2002). However, attempts to enhance customer convenience (Furst et al., 2002) in this information intense industry (Economist Intelligence Unit and KPMG Professional Services, 2000) resulted in the adoption of electronic strategies and systems. Electronic banking (e-banking) services first emerged in the early 1980s; credit card, ATM, and telephone banking service were three major applications at that period (Yang et al., 2009). During the last decade, database, information system and other technologies have been applied into banking services at different levels. After the Internet is available, e-banking services are now conducted through a secure website operated by their local banks (or a virtual bank). E-banking services available include online enquiry, e-payments, e-transfer, etc. at 24/7. In recent years, mobile banking (m-banking) service is emerging as another new direction of e-banking (Khraim et al., 2011). M-banking is that customers use wireless devices (cell phone, PDA, laptop, etc.) to access the internet and conduct the online services at any time from any place. M-banking is viewed as a powerful tool to complement regular e-banking with new developed services (Scornavacca & Hoehle, 2007). More recently, there

is a new development of e-banking-it is called TV-banking services, which allow customers to use digital TV to access internet and conduct the banking services.

Adopting e-banking services are empirically proven to help banking institutions achieve variety of business objectives including a green banking solution. E-banking eliminates physical and geographic boundaries and time limitation of banking service (Yang et al., 2009). Banks greatly reduce the labor cost, extend the service edge and increase the efficiency and effectiveness (González et al., 2008). As a result, e-banking can help banks to get higher customer acceptance and satisfaction, higher profitability and enhanced competitive advantages (Aliyu et al., 2012). In many parts of the world, electronic banking provides a solution to the problem of bringing financial services to the rural poor. The unbanked or under-banked living in rural areas now has the ability to get into many of the same resources as people living in metropolitan areas. However, one of the most important benefits that electronic banking offers is a green solution that helps environment. A bank can make improvement in the operational area by replacing the daily courier service with scans and electronic delivery. Employees can be sent paychecks and reimbursement checks electronically to save paper (Bihari, 2011).

Even though, mirroring the development of ecommerce, the adoption and diffusion of e-banking is far from uniform, especially between the developed and developing worlds (Yang & Ahmed, 2009). The developed countries have experienced widespread e-banking use and enjoyed its many benefits (Zhao et al., 2008). However, the developing countries have just started to embrace the concept of e-banking in recent years (Osho, 2008). In order to encourage further green banking solutions in developing countries, such as Vietnam, a better understanding of how e-banking adoption can impact the green banking practices is critical. By gaining an in-depth understanding of the factors and conditions that influence a country's ability to fully adopt e-banking services and realize its environmental benefits, strategic implications can be generated for the researchers and practitioners regarding how to promote the growth of green banking in the developing countries.

- Interest rate flexibility and efficiency

A green bank likely offers the best rate for each client by the benefits of cost savings. Saving accounts, certificates of deposit ... will be able to receive higher interest rates than conventional banks. The loan will be lower than the discount rate by the banks assessing the risk of the project or policy by supporting environmental projects.

- Supports projects ensuring environmental or community benefit

Green Bank is likely to provide loans for energy efficiency projects, it does not only work for non-profit purposes, but also activities for the sustainable development in the future, so green bank always interested in the project brings lasting benefits for the community.

A local bank with green features is a great resource for local green initiatives on social, educational, housing, creates direct benefits for that local community. Banks associated with local authorities is a good model for many areas, especially those where the economy is less active than other areas.

- Create interdisciplinary impacts

Through the project appraisal and credit in an efficient manner, the green banks will affect businesses in many different industries, indirectly impact on the overall situation of the sector. On the other hand, green banks require high- level technology to cater to the online services. The technology used in the bank can be imported, transferred or produced. This will contribute to the development of the information technology industry in the country, increase the demand for high-quality human resources in the software industry, and help to solve the problems of unemployment and employment.

Once the green bank became popular models, the standards in the business community as well as the responsibility of the banks, organizations and businesses will be higher and promote efficiency. Communities will receive more benefits from the ethical business activities.

The application of model green bank also contributed to culture in the use of banking services by customers. When the use of banking services become more convenient , fast, incentives and less expensive (through online banking, green accounts and credit cards...), the consumer will have tend to use bank services more. This will create social awareness in the use of banking services in the future and will create a society where financial services - banks became a familiar part of everyday life.

- Crossing the border

Thanks to the uniform standards and technologies, promising a green bank at a local service for customers across the globe is very large. When the green bank became a popular model and it will be more effective and more

countries want to join this movement. The large multinational banks such as ING Direct and HSBC are really capable of promoting the movement of the green movement by changing product, philosophy and the movement of these banks in a future release sustainable development. The banks appear online and now mobile banking empowers consumers in making decisions for their banks. This movement will be improved, and further developed in the future; green banks will become pioneering model.

4. International Experiences and Vietnam Perspectives

4.1 International Experiences

In many countries around the world, Green Bank is a new concept has been known in recent years, particularly for developing countries including Vietnam, because the requirements of environmental protection are trade-offs to achieve growth, economic development. However, after the global financial crisis in 2008, all countries in the world have to recognize the ways of organizing and operating model in its financial system, including banks. The issue of sustainable development, responsible business and corporate social responsibility, ethics and the environment are reviewed under a higher importance. Hence, the Green Bank emerged as a role model for banking in the future, is the foundation for the direction to a green economy for sustainable development.

In 2002, the International Finance Corporation (IFC) and 9 international banking conferences in London discussed the responsibility of banks to the finance development and construction of a decision to implement the standard for accountability the environment, society based on the standards of IFC. Equator Principles (EPFIs) for funding the project was officially launched in 2003 and now has 77 participating financial institutions. The standards will play an important role in the classification and ranking of green bank today. (Equator principles)

4.1.1 United States

In March 2009, the US introduced a Green Bank Act with aim of establishing a green bank under the ownership of the US government. The initial decision was to minimize the paper use in banking works. One is in-house green banking; another is practice by the bankers in their business area. Other activities was including creating clean and hygienic banking environment, green building, reforestation, online banking, waste management, installation of solar panel on the rooftop of the bank and using high mileage vehicles, reducing sound pollution, using webcam for video conferencing instead of physical meetings, online statements, emailing documents are included in the in-house green banking. On the other hand, the banking sector supported to the green projects like Biogas Plant, Solar/Renewable Energy Plant, Bio-fertilizer Plant, Effluent Treatment Plant (ETP), Projects having ETP etc.

A typical example of a green bank is in the United States. In the past of difficulties, when U.S. banks impose high fees and creates bad debt, a type of bank is emerging. It is the banks having a social conscience and applying principles of sustainable development and responsible for the business model and its products. An excellent model of the new wave of green bank is the launch of Green Choice Bank in Chicago area; Green Bank in Dallas (Schultz, 2011)

The United States also develop standards to evaluate and rank the level of "green" of the bank, published periodically by the Insurance Corporation Federal Deposit (FDIC). America is also the first nation regulates on environmental responsibilities of stakeholders, including bank loans in the United States must be governed by laws Reimbursement Act, Comprehensive Environmental (CERCLA) in 1980.

In a study of the potential role of green bank in the state of California , Juhnke C., et al. (2012) evaluated the potential impact of a Green Bank in energy efficiency and distributed generation , based on 6 criteria: (1) the number of additional projects are funded, (2) cost-effectiveness of the bank, (3) increase the benefits provided by the bank, (4) the feasibility the bank's management, (5) the ease of integration with existing programs of the government and (6) the political viability. Thereby, studies have demonstrated the presence of Green Bank has helped to increase the flow of capital costs to compete effectively, thus helping the state achieve clean energy and help reduce many of the current problems are plaguing this market.

The study "Sustainable Bank" of Imeson M., and Sim A., (2010) showed a close relationship between banks and factors: economic, social and environmental. Thereby, the study shows that a bank for sustainable development, the investor decided to look at the big picture and act in a way that benefits the consumer, economy, society and environment.

4.1.2 India

In India, the application of green programs for the environment and the community has been deployed for more than 2 decades, mainly loan programs for women, grant credits for economic development projects local ... Since

July 2010, the State Bank of India (SBI) has implemented the "green channel Counter (GCC)" and "banks do not line up" in more than 5,000 branches throughout India, as a step towards innovation "green bank" paperless transactions to send, withdraw and transfer money, pay and abroad. (Sahoo & Nayak, 2008) Some of public sector banks and private sector banks were also adopted green banking policies and provided green products and services. Case study of ICICI Bank Ltd in India is a particular example about adopted "Go Green" initiative included (Note 3):

- Green Products and Services: This innovation was including (i) Instabanking; (ii) Vehicle Finance and (iii) Home Finance.
- Green Engagements
- Green Communications: The institution provided to their customer for online bill payment, online funds transfer and subscription to e-statements that were promoted paperless and commute free.
- Green Partners: Beside the traditional customers, ICICI was also looking forward for green organizations and NGO.

However, the banking sector still was small role to positive impact environment in India. None of banks has adopted equator principle even for the sake records (Sahoo & Nayak, 2008). Research "Green Bank in India" by P. Nayak, (2008) demonstrated the importance of Green Bank, and recommends methods and political initiatives that are feasible to promote development green banking in India.

4.1.3 China

China has also implemented the "Green Credit Policy" in 2007, to encourage Chinese banks to grant credit for projects less polluting, environmentally friendly and energy use renewable energy. However, China has spent nearly 5 years since the policy issued until construction is detailed guidelines on implementing this policy (February 2012) and its implementation did not achieve as expected to evaluate the system due to lack of reliable data on pollution to help the banks financing the project classification. (Zhang, Yang, & Bi, 2011)

4.1.4 United Kingdom

Research on the Green Investment Bank (Green Investment Bank) by Vivid Economics and McKinsey (2011) have emphasized the role of the GIB which was established in 2010 by agreement of the UK government coalition finishing policy framework and the financial support necessary to address the failures of the free market, risk aversion, high transaction costs and lack of funds. According to this study, GIB could help expand the potential investors, improve the economic efficiency of the project and share information to reduce risk, namely, the evidence of the failure of market and opportunities GIB intervention as follows: (1) Sea wind energy: GIB help increase new investors, financial support to thereby increase the amount of renewable electricity as well as reducing the carbon footprint environment, (2) Use external power source of UK is an effective option for reducing carbon emissions in the UK territory, strengthen energy security and long-term competitiveness of the industry, the time, GIB also helps mobilize funding for the project and reduce carbon emissions into the environment, (3) GIB also supports waste processing industry to minimize the landfill, generate heat renewable energy and carbon emissions.

The analysis of Vivid Economics and McKinsey (2011) showed that in all three cases, the intervention of the GIB is more efficient and fair, in addition to the current policy. GIB's intervention helped to mobilize funds from equity market, debt markets and enable pricing of risk in financial markets through enhancing transparency and widened investment flows into sustainable development projects.

4.1.5 Bangladesh

Maruf's study (2010) showed that in Bangladesh only public banks and foreign banks are operating guidance for green banking and financing some projects environmental friendly. Commercial banks are encouraged to sponsor the wastewater treatment plant in the industrial park; the project uses solar energy; biogas... This study also made recommendations that the banking green in Bangladesh should be catalyzed and supported by investment and public spending, and improving policies and government regulations.

Raad Mozib Lalon (2015) listed the Green Banking Policy in Bangladesh concerned based on three phase through time of framework. The policies encouraged banking sector avoids as much paper work as possible and relies on electronic transactions for processing of in-house activities. Moreover, it also created brand image and create awareness amongst the stakeholders about the environment as well as environmental friendly business practices. On the other hand, this policy was also building a sanction loans to environmentally harmful projects so that make sure to:

- Phase I concerned to develop the awareness and show general commitment on environment through banks' performance including 9 policies: (1) Policy Formulation and Governance; (2) Incorporation of Environmental Risk in Core Risk Management; (3) Initiating In-house Environment Management; (4) Introducing Green Financing; (5) Creation of Climate Risk Fund; (6) Introducing Green Marketing; (7) Online Banking; (8) Supporting Employee Training Consumer Awareness and Green; (9) Reporting Green Banking Practice.
- Phase II was based on 7 components: (1) Sector Specific Environmental policies; (2) Green Strategic Planning; (3) Setting up Green Branches; (4) Improved In-house Environment Management; (5) Formulation of Bank Specific Environment Risk Management Plan and Guideline; (6) Rigorous Programs to Educate Clients; (7) Disclosure and Reporting of Green Banking Activities.
- Phase III was processing 1-year after Phase II. It was based on a system of Environmental Management to address the whole eco-system through environment friendly initiatives and introducing innovative products including two parts: (1) Designing and Introducing Innovative Product and (2) reporting in Standard Format with External Verification.

Rahman (2013) in a study of the prospects for green bank in Bangladesh have shown changes in investment management, deposit administration, recruitment, social responsibility of business and raising public awareness is the fundamental element for the development of green banking in this country. Central Bank has issued circulars, on that basis; the commercial banks have developed manuals and privacy policy of each bank to implement strategies and plans.

The theoretical and practical activities of the country in the field of finance and green banking shows the need for intentional interference or any form of assistance from state agencies to encourage the flow of credit to business and consume environmental friendly products, resource extraction. Naturally, the cost that is spent by the Government is an investment for the future for sustainable development. It is a wise investment but in the long -term persistence and the regulatory role of government is indispensable to create the necessary preconditions for the participation of civil society, or in other words, social of financial services and green banking. Although this is a relatively new field, but there have been some valuable researches from different angles. The results of this study are important scientific basis for making models of green banking or financing suitable to local conditions towards the sustainable development of Viet Nam.

4.1.6 Greece

Angelos Papastergiou (2001) examines the sustainable development problem of banks in Greece. This paper shows the positive developments in sustainable banking. Some of banks could ignore the economic characteristics of customers if these projects were considered the beneficial effects on the environment. On the other hand, it is frequently asserted that small banks signed of the Equator Principles, which was one of the most important standards for responsible financing, had been under the umbrella of larger banks. Only the largest Greek banks provided the detail of environmental activities while the other banks were not. It is general accepted that the environmental performance of Greek bank was bias, it was depend on banks' structure and dimension.

4.2 Suggestion for Vietnam Perspective

4.2.1 Green Bank in Vietnam

In developing countries, benefits of green banking can be shown more directly such as (1) Avoids paper work: Almost all banks in India are computerized or operate on a core banking solution, that's why the banks can adopt paperless or less paper for office correspondence, audit, reporting etc. (2) Creating awareness to business people about environment. Many NGOs and environmentalists are propagating environment consciousness among the public in general by arranging awareness programs and organizing seminars etc. Banks may sponsor such program which in turn helps to brighten the image of the bank. (3) Loans at comparatively lesser rates: Banks can also introduce green bank loans with financial concessions for environment friendly products and projects such as fuel efficient vehicles, green building projects, housing and house furnishing loans to install solar energy system etc. (4) Environmental standards for lending: Banks follow environmental standards for lending and it will make business owners to change to environmental friendly business (Meena, 2013)

It can be said, to date, there is little in-depth research in Vietnam on the green bank and propose a model that best suits green bank to Vietnam. According a survey in June-2012 of SBV is based on 54 commercial bank, it is clearly asserted that 91% of those permitted that is not a clearly policy in banking level about green growth, 35% of those had not gain knowledge about the concept of environment and social issues. In particular, 89% said that the SBV's regulation was still lacked on management of social environment in financial industry. In the same year, an independent study of PanNature also has examined 19 major commercial banks in Vietnam at present

(based on capital and assets) showed that only Sacombank by itself built risk management system credit for the environment and society. Accordingly, the project sent to Sacombank is classified based on the level of impact on the environment, which the bank will provide credit decisions for the project or not and set the monitoring plan, and satisfactory test agreements with customers to minimize the impact of the project on the environment. (PanNature, Center of Human and Nature, 2012)

Generally, Vietnamese banks is still lack of experiences about new technology, get into trouble with new energy credit such as the bias about risk appraise, therefore those reduced the loans when compared with normal projects. Moreover, most of banks only appreciate on collateral rather than caring about investment cash flow. Those tend to prefer short-term project that could be rapidly capital recovery, instead of the long-term environment projects. Banks also have to admit that some loans to enterprises violating environmental regulations and carry a high risk society, but most banks have not found a direct relationship between the performance existing environmental risk management, customer social, financial performance of their operations as well as the financial situation of the bank... this issue is one of the factors that led to the banking system faced with a series of negative impacts as a legal dispute, the negative impact on reputation, prestige. To explain for this situation, most of banks said that the SBV's regulation was still lacked on management of social environment in financial industry.

Regarding State Bank of Vietnam (SBV), those have started implement to green bank. SBV signed the cooperation agreement with the International Finance Corporation (IFC) building regulations on risk management and social environment in the banking application. Developing indicators of environmental risk assessment, society for each sector, criteria for investment credits to environmental risk assessment ... The central bank also said the roadmap circular control regulations environmental risks society is being consulted draft 1st and 2nd quarter end is the end of the third quarter 2013, expected to be issued in early 2014. While banks and credit institutions to apply environmental management systems and society will: (i) dramatically improves quality through the whole credit portfolio can identify and effectively manage environmental and social risks; (ii) assembly and better control credit risk and collateral risk of each loan by environmental issues and social make up; (iii) expanding market share by product/service new environmentally friendly, strengthen existing customer network and attract new customers good quality; (iv) improved reputation and brand value of the organization by reducing the risk of reputation and legal risk if affiliated to the project or activity does not comply with the regulations on the environment and society; (v) attracting capital or the international financial institutions and support oriented activities and social environment.

In a research on the tool to support green growth, Vu Xuan Nguyet Hong (2013) has pointed out two fundamental challenges when implementing green finance and banking in Vietnam (1) Social awareness about financial and banking are limited, green growth is considered the cost to the environment rather than business opportunities, (2) Lack of regulations and laws on green bank and finance, lack of mechanisms to support the development of financial institutions and green banks. This study also points out the challenges of the financial and ready for green bank in Vietnam as follows: (1) The total investment is higher when investing in green projects by high-risk, (2) Viet Nam Businesses are mainly small and medium, have weak financial capacity, (3) Challenge on the opportunity costs associated with the social responsibility of business, (4) The financial budget is limited, while green revenues from economic instruments such as limited green taxes for environment, (5) Products and financial, green banking services-are not many, subject to strong competition with products/services from others, (6) The bank itself is not commercial enough capacity to supply products and financial, green banking services.

As it can be seen, green bank is a new model but necessary and potential in Viet Nam. The construction or conversion of Viet Nam commercial banks towards greening became an inevitable need for sustainable development, towards the future of Viet Nam.

Currently in Vietnam there is not a bank really be considered green bank, but in the service of the commercial banks appeared green products of the bank. Most recently, LienViet Postbank launched Green Banking program in December 2012, with the objective of making environmental protection activities became an activist in the long term focus of the bank. LienViet Postbank activities in this program include (i) Green Office Building (Green Office), (ii) Exchange the green tree for paper (Green Paper) and (iii) Transactions Green Building for clients' smile (Green Smile) (Lienviet Postbank, June 2012).

Many commercial banks in Vietnam as Techcombank, M. B., VietinBank, Agribank, Maritime Bank... have electronic banking (Internet banking, SMS banking, mobile banking...) operate in parallel with the transmission of tradition banking systems. The service is a big part of building a green bank; however, these services have not

been developed and disseminated widely in the reality in Vietnam.

4.2.2 Conditions for Implementing Green Bank Model in Vietnam

In term of economic development model transformation toward green growth, the development of green banking model in Vietnam is inevitable. Clearly, the benefits and effects of green bank to the economy have been proven by related researches and studies. Basing on the international experiences, some recommendations for building green bank models in Vietnam are suggested:

4.2.3 Improve Bank Leaders' Knowledge about Green Bank Model

When most of bank leaders have much experience in managing modern and multi-functional banking system, but lack of a full awareness about green bank, this solution can be considered the most feasible and necessary. It can be explained that in bank restructuring period, the bank leaders focused more on bad debts, liquidity insurance and were not really sufficiently interested in the role of green bank to sustainable development of the economy. If bank leaders have had a full awareness of this model, the bank would build a reasonable development strategy and business plan corresponding to different levels of green bank.

4.2.4 Propagate and Educate Bank Customers about Benefits of Green Credit

One of the most benefits of green bank is to contribute to economic structure adjustment, promote green industry and business development, supporting the economy to achieve green growth. Besides, the customer of banks is the only one to bridge green credit to the economy via their green investment. Therefore, propagating and educating corporations about the long-term impact of green manufacture and green investment has a direct impact on green credit's output. If there is no corporation and borrower, the green credit supply of banks will become meaningless.

4.2.5 Strengthen Policies to Support and Encourage Banks to Develop Green Services

The lessons of successful countries clearly show that government should support and create the most favorable conditions for green bank. The commercial banks providing green credits or actively build green bank plan should be granted constructive policies on taxes, charges and interest rates. Besides, the survey results also emphasize the need of technical support and suitable techniques for evaluating environmental factors of the investment project. Initially, government could create the conditions for the first pilot green banks at level 5 (the highest level) so that the model can easily spread in the entire banking system.

4.3 Suggestion for Vietnamese Market

Green banking is a future concept, but banks in Vietnam are running behind the scene for many reasons including from internal banking activities and SBV's policies. It is generally accepted that Vietnamese banking system should follow the green bank concept both of in-house environmental management activities and professional operations. On the other hand, SBV is important part to encourage green bank activities in commercial banks through SBV's activities and policies.

a. In-house environment management activities

Many case studies in different countries applied this concept to the real operations like Bangladesh or the US experience. These activities are including:

- Paperless banking: Change their outline operations through the adoption of paperless banking, online banking, and mobile banking, and mass transportation system, green cards made up of recycled plastic and efficient use of resources.
- Green Building: The banks' building should be used of renewable energy generated through solar power plants, energy star-rated light fixtures, motion sensors, sewage treatment plant for re-using water waste, urinal and wash basin sensors, rainwater harvesting system, recycling of dry waste, etc. It will also improve the public relations and employee satisfaction and thereby it reduces the attrition rate of employees.
- Green marketing: The banks should create a marketing promotion which is based on environmental impactions such as set up outlets to promote green business, create annual environment report; advertising the green products to press and leaflets.

b. Professional operation and innovation products & services.

- Low carbon technologies: The banking system should apply the modern technologies and develop the new sustainable product and services. They could focus on carbon credit business or priority to carbon credit projects.

- It is undeniable that is very important when adopting environmental standards for lending and financing principles. Because of the vital of financial problem, the borrower could focus themselves towards environmental activities such as reducing the carbon footprint by the modern technologies. Moreover, those should build a policies to discounted loan rates for the friendly environment projects or hybrid product; adoption some of Equators Principles, green mortgages or green loans.
- Banks could refuse to cooperate with new customers if those customers are not committed to compliance or inability to comply with environmental regulations and social of those.

5. Conclusions

ASEAN Economic Community will take effect later this year, Vietnamese banks will face competition from the banks in the area in which a lot of banks have followed the standards of environmental and social international. Customers and partners are always required sponsorship criteria and social environment from their partners. Thus, in order to win new business opportunities and expand market share, the banks of Vietnam should act to meet the general trend there. Sustainable development is not simply about "justice" but also to ensure economic benefits as asset protection, reinforce brand value and reduce the cost of capital.

Benefits of green development and sustainable development are obviously evident to the parties. However, the green bank is still quite new and thought to do this, banks and businesses must have a strong commitment to be able to succeed because the initial cost is huge. Besides, the support of many departments of the Government such as Finance, Planning and Investment, Trade, Science, Technology and Environment, etc is highly recommended. Initially, these commitments to the new concept will cause a huge financial burden for banks but it is undeniable the long-term effective of this model. Therefore, for sustainable banking, the Vietnamese banking sector should apply green bank as a business model without any further delay.

Acknowledgements

This research is funded by Vietnam National Foundation for Science and Technology Development (NAFOSTED) under grant number: II.4.5-2013.36

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Notes

Note 1. IBRD, 2014.

Note 2. Greenbank Report, July 2010, "The basics of green banking". Retrieved August 17, 2013, from <http://greenbankreport.com/green-bank-report/the-basics-of-green-banking/>

Note 3. Vikas Nath, Nitin Nayak, Ankit Goel, (2014).

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