

# A Customer's Perspective of Green Banking: A Case Study of Commercial Banks in Mauritius

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## Abstract

The objective of this research is to gauge the level of customers' awareness on Green Banking products and services by commercial banks in Mauritius. Additionally, this research investigates the opinion of customers as regards to Green Banking concept and evaluates the influence of the Green Banking initiatives adopted internationally on Mauritian customers. The primary data was collected through a sample of 200 questionnaires from customers and using SPSS software to generate the descriptive results. 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. However, the majority of the respondents rated positively to the efficiency of green projects/CSR that is implemented by green banks in Mauritius. It can also be noted that most of the respondents make use of e-statements with a mean score of 3.53 followed by the use of internet banking and mobile banking with higher mean scores.

## Keywords

Commercial Banks, Customer's Perspective, Green Banking, Mauritius

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## 1. Introduction

The past decade has witnessed a growing importance of the banking sector worldwide as most major economies have become highly dependent on the sound functioning of the financial and capital markets. While banks have been categorised as a low-impact sector with their relatively low carbon footprint; the 2008 financial crisis has rekindled an interest in their triple bottom line. As a result, there was a movement of greening their operations and marketing themselves in terms of responsible banking.

The strategic move to embed the green culture as part of their operations has upsurge recent scholarship. The emerging concept of green banking has been investigated in different countries [1] [2] [3] [4] [5]. These studies suggested that sustainability in the banking sector can take two forms. Banks can change their routine operations through recycling programs, paperless banking, using energy efficient resources, and support for community events for reducing pollution and so on or they can adopt lending and investment strategies to promote environmentally responsible projects and can also develop green products to ensure the sustainability in their core business.

In Mauritius, the banking sector represents a core pillar of the economy with their total assets representing has 278% of the GDP (Global Finance Mauritius, 2015). In line with the global trends, the recent years also witnessed the introduction of green products by the banks in Mauritius. In line with the scantily researched green banking awareness in lesser developed countries, this research will address this gap by investigating the level of customers' awareness in this respect amongst the biggest market players.

The primary objective of this research is to gauge the level of customers' awareness on Green Banking products and services by the MCB, SBM, HSBC and Barclays Bank in Mauritius. Additionally, this research investigated the opinion of customers as regards to Green Banking concept, evaluated the influence of the Green Banking initiatives adopted internationally on Mauritian customers and analysed what commercial banks are doing to arise the customers' green consciousness and create awareness of Green Banking in Mauritius. For this particular purpose, a questionnaire was administered to 200 randomly selected customers of the aforementioned banks.

The remainder of the paper is structured as follows. Section 2 focuses on the literature review and the different terminologies pertaining to Green Banking. This is succeeded by Section 3 pertaining to the methodological stance adopted and the addressed to both the bank customers and interviews with the bank managers. The following section will then present the findings in line with extant literature and the last section will conclude with recommendation and possible suggestions for future research.

## **2. Literature Review**

The growing dominance of the banking sector worldwide has also morphed banks to adopt a more sustainable culture. The sustainable approach of banks is coined as the term green banking. Green banking is the diversion from the conventional way of banking towards the adoption of strategies that entails more environmental benefits and to bring more efficiency in their operations [6] [7] [8] [9].

### **2.1. Green Banking Strategies**

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.

## **2.2. Consumer's Awareness and Attitude towards Green Banking**

The prime motivation of adopting green banking strategies rest in building a green image [3] [10]. As Chang & Fong [4] stated the green image is established when banks are able to provide credible and innovative product to meet the expectations of green customers. Consumers respond to these green innovative strategies through satisfaction, perceived corporate benefits, product evaluations, purchase intentions and brand equity. Studies revealed that green initiatives by banks can attract more customers. Luo & Bhattacharya [11] studied the published green ratings and customer satisfaction scores and found a positive relationship among the two variables. Chomvilailuk & Butcher [12] outline the predominance of service value perceptions and found that green initiatives provided marginal predictive ability to brand preference in the banking sector. Poolthong & Mandhachitara [5] found that there is a positive relationship between customer expectations on a broad range of green issues and brand influence. Another school of thought also triggered the lack of environmental awareness amongst public [13] [14] [15]. Environmental awareness plays a major part in building the green corporate image as consumers are more conscious about their purchase of products and services. In line with the growing concern for boosting green attitude and environmental awareness, banks can go for green advertising. Green advertising seems to offer a way out for "the day after" in the bank market, by contributing towards sustainable development [16] and establishing a positive environmental image that satisfies the customer's environmental desires and green needs [4].

## **2.3. Benefits of Green Banking**

A study by Ullah [11] stressed on banks being corporate citizens and the need for them to adopt green step for a greener future. The latter concluded that one main benefit of green banking is the increase in awareness about the global warming issues whereby each businessman will contribute a lot to the environment and make this earth a better place to live. Through the adoption of innovative technology, green Banking principally avoids as much paper work as possible and relies on online/electronic transactions for processing so that you get green credit cards and green home loans. Furthermore, customers benefit from capital gains as the interest of a green loan is relatively less with normal banks because green banks allocate more significance to environmental friendly factors that is environmental gains. Green loan are loans provided which aims at cutting down carbon

emissions or towards more conservations of natural resources.

#### **2.4. Challenges of Green Banking**

Green banking may sound promising and have manifold benefits, but banks adopting these green strategies also face challenges. Firstly, there may be high operational cost as a green bank requires talented skilled staff to offer proper services to customers. Qualified loan officers are required additional expertise in dealing with green business and customers. Secondly, a green bank may face reputational risk if it is involved in those projects which are damaging to the environment. In addition, Green Banking may lead to diversification problems as those banks tend to limit their business transaction to those business entities that pass the screening process. Thus, with a limited number of customers they will have a smaller base to support them. Another challenge of green banking is the start-up phase. This is due to the fact that many banks in green business are very new and are in start-up phase. Furthermore, credit risk may arise due to lending to those customers whose businesses are affected by the cost of pollution, change in environmental regulation and new emission level requirements. There is high probability of customers defaulting as a result of uncalculated expenses for capital investment in loss of market share, production facilities and third party claims.

#### **2.5. Green Banking at International Level**

In the mid-1990s, the United Nation Environment Programme (UNEP) introduced what is presently recognized as the UNEP Finance initiative (UNEPFI). The goal is to incorporate the ecological and social dimensions into the evaluation of financial performance and risk associated with the financial sector. Around 34 International banks follow the codes of conduct of the UNEP in relation to the Environmental Reporting, environmental management system, environmental policies and environmental risk assessment to diminish environmental impact both internally and externally [17]. In 2002, a global alliance of Non-governmental organisations (NGOs) shaped a system termed “Bank Tract” to promote sustainable finance in the business sector. This alliance constitutes of six principal commitments namely responsibility, accountability, transparency, sustainable market, sustainability, no-harm, and governance. A minority group of banks together with the International Finance Corporation (IFC) convened to initiate the procedure of planning the common guidelines in October 2002 and developed the guidelines June 2003 known as “Equator Principles”. The guidelines have turned into a typical benchmark of project finance that incorporates environmental social issues in project finance. Similarly, World Bank E&S Norms, Carbon Disclosure Project, Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), ISO 14000 and so on, are other guidelines for Green Banking.

### **3. Research Methodology**

The purpose of a methodology is to describe the means and ways that have been

adopted to carry a research in a particular area. The principle of this study is to evaluate the level of customers' awareness on Green Banking in Mauritius. The targeted sample was surveyed to shed light on issues regarding Green Banking initiatives and their contribution towards a greener and sustainable environment in the banking sector. The research methodology used in this dissertation is based on primary data collected by administering 200 questionnaires to customers of the aforementioned banks. Furthermore, interviews were carried out with bank managers to gauge the green banking initiatives and policies if applicable. SPSS 20.0 was used for the data analysis.

### 3.1. Research Problem and Objectives

The research question of customers' awareness on green banking practices in major commercial banks in Mauritius will be dealt with.

The objectives of this research are as follows:

- To investigate the level of customers' awareness regarding Green Banking services initiatives undertaken by commercial banks in Mauritius;
- To identify the opinion of customers as regards to Green Banking concept;
- To evaluate the influence of the Green Banking initiatives adopted internationally on Mauritian customers;

### 3.2. Questionnaire Design

The data gathering tool used consisted of a self-monitored questionnaire. The questionnaire was made up of twenty questions designed based on the research objectives and the literature review. It includes both open-ended and closed questions.

Moreover, the questionnaire was grouped under six different sections to cater for the following **Table 1** issues.

**Table 1.** Composition of the questionnaire for the survey.

<p><b>Section 1: Demographic Data (Question 1 - 6)</b> This section of the questionnaire covered the respondent's profile with specific demographic data including gender, age group, marital status, education level, occupation and monthly income.</p>	<p><b>Section 2: Awareness and Concepts of Green Banking (Question 8 - 12)</b> This section was about the participants' general knowledge and awareness and concepts of Green Banking.</p>
<p><b>Section 3: Level of Satisfaction and Satisfaction of Green Banking (Questions 13 - 14)</b> The aim of this part was to find out how far customers are influenced and satisfied with Green Banking products and services.</p>	<p><b>Section 4: Benefits and Challenges of Green Banking (Questions 15 - 16)</b> Here the purpose was to find out whether customers know about the benefits and barriers to Green Banking.</p>
<p><b>Section 5: Green Banking and Sustainability (Question 17)</b> In this part, the efficiency of green CSR/projects implemented by green banks in Mauritius was rated by bank customers.</p>	<p><b>Section 6: Green Banking at International level (Questions 18 - 20)</b> Finally, this section dealt with the international strategies adopted by foreign banks and their influence on Mauritian customers.</p>

### 3.3. Limitations of the Study

In order to get a more valid data and a better view of the knowledge and awareness of Green Banking in Mauritius, the sample size selected during the present survey could have been increased. More reliable data could have also been collected in assessing the level of influence of the strategies adopted by green banks locally as well as internationally.

## 4. Findings and Discussions

The first part of this section will discuss the findings about the adoption of Green Banking Practices in Mauritius and on the international forefront using the mean score from the questionnaire response. This will be followed by diagrammatical representations (percentages) of the level of awareness of such practices while the last section will cover the results from the hypothesis on the awareness of Green Banking using chi-square tests.

### 4.1. Mean Score Analysis for Green Banking Practices

The mean scores for three main parts are presented in the table below. They are ranked accordingly to the highest mean which shows the highest influence, usage, and satisfaction from the practices.

From the **Table 2** below, the level of Green Banking practices amongst Mauritian customers can be gauged. The first angle assesses the influence of advertising campaigns and the mean scores registered for the initiatives that has been recently introduced is quite high ranging above 2.6 on a score of 4 for the highest ranked one. Although practices such as for e-statements, internet banking, mobile banking were also assessed in the section, the latest one seems to be the

**Table 2.** Presentation of mean scores for green banking practices.

Influence of advertising campaigns adopted and potential international strategies to be adopted by commercial banks in Mauritius (1 - 4 score)	Usage of green banking products/services (1 - 5 score)	Satisfaction of green banking products/services (1 - 4 score)
1) Advertising of building sustainability policy customers investing 5 Pounds sterling receiving environment certificate (mean 3)	1) Use of e-statements (mean 3.53)	1) Satisfaction of green loans (mean 3.97)
2) Advertising of Barclays bank breathe card-green credit card (mean 2.74)	2) Use of internet banking (mean 3.38)	2) Satisfaction of mobile banking (mean 3.02)
3) advertising of investment in an eco-digester to recycle St Jean canteen's organic waste into compost (mean 2.72)	3) Use of mobile banking (mean 3.29)	3) Satisfaction of e-statements (mean 2.93)
4) Influence by advertising of distribution of 50000 reusable bags to MCB staff (mean 2.67)	4) Pricing of ATM (mean 2.91)	4) Satisfaction of internet banking (mean 2.90).
5) Advertising of eco loan to install photovoltaic systems (mean 2.66)	5) Use of Green loans (mean 1.42)	5) Satisfaction of pricing of ATM statements and receipts (mean 2.67)

most influential advertising. The usage of Green Banking products and services has generated high mean scores indicating that Mauritian customers have adopted such practices. However, the results of usage and satisfaction derived seems to be controversial since the use of green loan is the least scored one but has the highest satisfaction level amongst customers. The reason behind it could be the conditions for these loans might be relatively relaxed to be obtained since it is newly introduced. This also raises concern about the contradiction about usage and satisfaction; customers might just anticipate the satisfaction though they are not actively engaged in it.

## 4.2. Agreement, Knowledge and Choice

### Agreement of Green Image (Figure 1)

The results of the agreement that banks have set up green image, it can be seen that out of 200 respondents, 110 respondents agree whilst 89 representing 44.55% disagree that banks have not set up green image. The respondents who disagree, lack awareness on the term green image. From the result obtained, it can be deduced that the majority of the respondents agree that the major commercial banks in Mauritius have indeed set up their green image. This is in alignment with Chen & Chai [18] study, whereby the green picture of a brand is set up through its professionalism in environmental reputation, its accomplishment in environmental performance and trustworthiness regarding environmental promises.

### Agreement of Green Consumer (Figure 2)

The figure below shows the level of agreement of the respondents with the concept of being a green consumer. It can be observed that the:

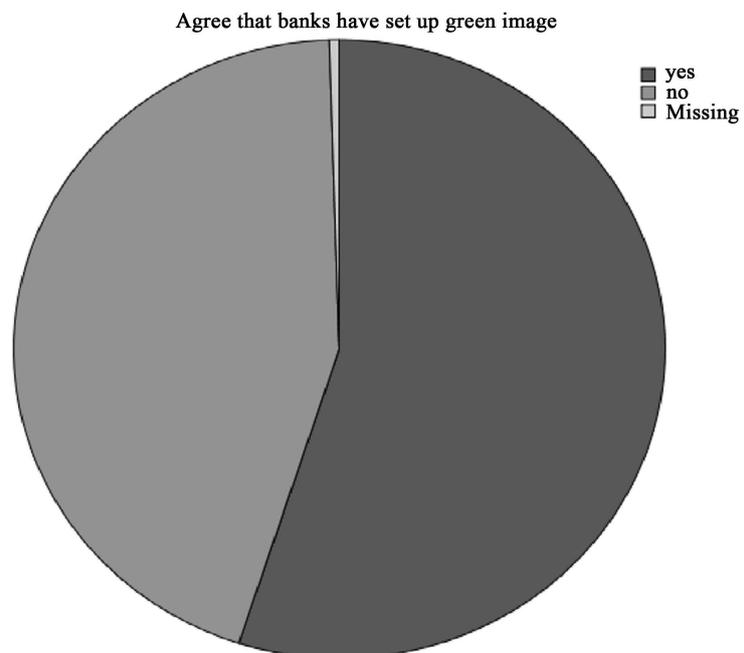
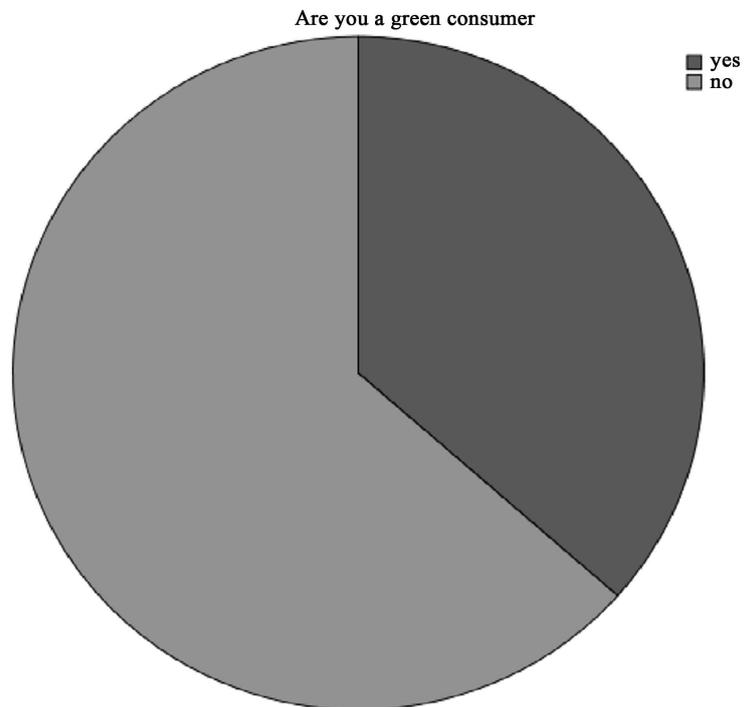


Figure 1. Agreement that banks have set up green image.



**Figure 2.** Agreement of green consumer.

- 1) The majority of them (63.5%) said they are not green consumers.
- 2) Only 73 out of the 200 respondents confirmed that they are green consumers.

This can be justified in the light that the lack of proper knowledge and attitude has a major effect on the consumers' intention to buy and use green products thereby classifying them as non-green consumer.

The majority of the respondents said they are not green consumers. The above result is in agreement with [15] who advised that the majority of people lack awareness on ecological issues to act in an environmentally responsible manner. Thus, the majority of respondents agree that they lack general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems [13].

#### **Agreement of Possible Barriers**

In addition, the survey comprised on customers views on possible barriers that can impede on green banking. The majority of respondents 81% favour towards lack of information on green products and services adopted by commercial banks, 74% agree that there is a lack of staffs to show how to use green banking products and services and 70% are not aware of green products and services adopted by commercial banks. However, 71.5% disagree that they are not interested in green products and 66.5% disagree that it is complex to use of services like ATM, Internet banking and Mobile banking.

#### **Agreement of Green Banking Initiatives**

While the main motivation of green banking strategies lies in building the green image for customers. It is crucial to be aware of the demand of customers.

Thus, the survey investigates the banking initiatives that customers are more likely to adopt. From the results, it can be seen that the majority of the respondents (98.5%) would agree to use recycle paper or recycle waste if this could be introduced in Mauritius in the future. Moreover, 95.5% agree to be provided with recyclable debit and credit cards which shows very positive response to promoting green banking in Mauritius. Also, most of the respondents are in favour of communication strategies in the press (91%) and conducting workshops and seminars for green banking (90.5%). Nevertheless, 24% disagree with green mortgages. This could be due to the lack of information available on this new green banking product.

### 4.3. Hypothesis Testing and Chi-Square Test

#### Chi-Square Tests

Chi square test was used to test if customers are aware of green banking concept.

**H<sub>0</sub>: Customers are aware of green banking concept**

**H<sub>1</sub>: Customers are not aware of green banking concept**

The result obtained is 0.000 which is less than 5% significance level, so we cannot reject H<sub>0</sub> and therefore conclude that customers are aware of green banking concept. The findings from the survey for the first hypothesis have shown that a high percentage of participants are aware of the concept of green banking. This has shown that the remarks of respondents do not agree with the predictions derived from the working hypothesis. Yet, this disagreement does not guarantee that the hypothesis is actually false as the minimum knowledge of participants on the related issues to green banking have biased their responses. With a broader awareness on green banking as it is done in other countries, the results might change.

### 5. Conclusion

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 adver-

tising 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. It can also be noted that most of the respondents make use of e-statements with a mean score of 3.53 followed by the use of internet banking and mobile banking with higher mean scores. The findings from the survey after carrying out hypothesis test have revealed that a high percentage of bank clients are aware of Green Banking concept. 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.

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