# The Marketing Environment and Intention to Adoption of Green Banking: Does it have a Relationships?

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#### Abstract

The purpose of this study is to understand the relationships between marketing environment and adoption of green banking practices in commercial banks in Sri Lanka. The research objective of this study is to understand relationships between marketing environment and adoption of green banking in commercial banks in Sri Lanka. In order to achieve this objective the data were collected from 300 staff of commercial banks, by establishing variables to measure the factor and its extend of impact on adoption of green banking. The research framework of study consists of a variable - Concern for the marketing environment which was used to measure the level of the concern for the environment influencing the intention to adoption of green Banking practices in Commercial Banks in Sri Lanka. This study was quantitative in nature. Findings of the research shows that the Concern for the marketing environment is influencing at high level in adopt of green banking practices. The results of the hypothesis testing shown there is positive relationship between Concern for the marketing environment and intention to adoption of green banking is found to adoption of green banking practices in commercial banks in Sri Lanka.

Keywords: - Marketing environment, Green Banking, Intention to adoption.

#### Introduction

Banking system is absolutely essential in this modern world. When considering the economy of a country, an important role is played by the banking system for the growth of economy in a developing country and forms the core of the money market in an advanced country. The banking sector all over the world is going through vast changes owing to the decrease of rules and controls, technological innovations, globalization, increasing competitions, etc. at this present world. But the banking sector of Sri Lanka is very slow to adopt the changes taking place recently and tries to adjust their activities to be shown as world class bank.

Both public and private sector banks of Sri Lanka are following a range of non-price competitive strategies to achieve the market as the banking industry is a kind of monopolistic competitive market in the country. The concept of green banking is a new and strange technology oriented strategic approach for Sri Lankan banks to achieve triple bottom line business results at this situation. Generally the banks begin paperless and information technology oriented banking services to the customers and contributes towards achieving sustainable development. The term "green banking" is a very important strategy handled in the above mentioned sequence as the brand positioning factor. The banks can enjoy cost effective advantages while contributing to the environmental sustainability from this strategy.

As banks should consider about their profit, they should concentrate on their financial environment decreasing wastages and considering the benefit of the society as well. Green banking is the only solution to overcome this challenge faced by the banks.

As many developed countries have already begun to processing on green banking, Sri Lanka is also attempting on this concept to protect the environment and improve the society. But there are many factors affecting the implementation of green banking activities in Sri Lankan commercial banks. Therefore this study try to focus on the level of concern for the marketing environment influencing on the intention to adoption of green banking practices in commercial banks in Sri Lanka.

#### **Literature Review**

Environmental considerations hinge on protection of environment and thereby quality of human life by controlling negative implications of human activities. Within this broader context, there are two primary areas of concern for regulating entities and the government; degradation of natural resources and climate changes.

Natural resources are materials that occur naturally and are used by humans to make more complex human-made products. Natural Capital is the world's stocks of natural assets which include geology, soil, air, water and all living things from which humans derive a wide range of services, often called ecosystem services, which make human life possible. The problem of natural capital arises from its very nature of being freely available creating the classical economic issue of free ride. A continuous drawdown on natural capital, without allowing the nature to recoup, creates the risk of ecosystem collapse. The regulators and governments are, therefore, concerned to put a price on use of natural capital as a measure to promote resource efficient businesses. The primary areas of concern include air pollution, water pollution and scarcity, encroachment of rivers, improper disposal of industrial medical and household waste, deforestation, loss of open space and loss of biodiversity.

Put forth simply, the climate change is a measure of shifting weather patterns. It refers to significant changes in the measures of climate (average weather conditions or time variation of weather around longer-term average conditions) that last for extended periods of time. It includes major changes in temperature, precipitation, or wind patterns, among other effects, that occur over several decades or longer. The shifting of weather patterns has occurred historically due to natural phenomena out of human control like variations in solar radiation, movement of plate tectonics, and volcanic eruptions etc. However, evidence is building up that current climate change is due to the global warming caused by release of large amounts of carbon dioxide and other greenhouse gases into the atmosphere. The greenhouse gases act like a blanket around Earth, trapping energy in the atmosphere (greenhouse effect) and causing it to warm (global warming). The climate changes have direct effect on biodiversity, agriculture, forestry, dry land, water resources and human health. Pakistan is considered very high on vulnerability scale. The climate changes are already causing erratic monsoon rains, recessions of glaciers, and intrusion of saline water into Indus delta and reduced agricultural output.

Fundamental to environmental research is an individual's concern for the environment (Hines et al., 1987). Based on the pioneering research of Dunlap and Van Liere (1978), environmental concern is defined as a global attitude with indirect effects on behavior through behavioral intention. Crosby, Gill and Taylor (1981) mentioned that environmental concern is a strong attitude towards preserving the environment.

Dunlap and Jones (2002, p: 485) defined environmental concern as the degree to which people are aware of environmental problems and assist struggles to solve them or signify the readiness to contribute personally to their solution. In literature, it is almost commonplace that people are definitely concerned about environmental problems. As a result, it is not the weakness of environmental concern, but some other factors that hamper them in undertaking environment friendly behavior.

According to Chan and Lau (2004), environmental concern has variety definitions which depend on perspective and its complicated and unstable nature. Environmental concern defined by Dunlap and Jones (2002) as people awareness of environmental problems and attempts to solve it. However, the early definition of environmental concern was the degree of protective attitude towards environment (Crosby, Taylor & Gill, 1981), but later was defined as a general attitude which has an indirect influence on attitude through behavioural intent (Gill, Crosby & Taylor, 1986). In addition, environmental concern refers to an individual's emotional feature such as like or dislike, worries and consideration\_ Yeung, 2004) and the belief, attitude, and degree of concern (Said, Ahmadun, Paim & Masud, 2003) towards the environment. Hence, environmental concern can be concluded that an individual was emotionally involved to environmental related issues.

Schultz and Zelezny (2000) stated that "attitudes of environmental concern are rooted in a person's concept of self and the degree to which an individual perceives him or herself to be an integral part of the naturalenvironment". Some of the environmental sociologists have referred environmental attitudes as "environmental concern" (Vining & Ebreo, 1992; Fransson & Gärling, 1999; Dunlap et al, 2002). It meant that environmental concern is synonymous with environmental attitude. Therefore, this two terms can used interchangeable in many studies (Dunlap et al., 2002). However, some of the studies have separated them into two different terms (Stern and Dietz, 1994; Schultz et al., 2000; Sinnappan et al., 2011; Zank Hessami et al., 2013). Moreover, different segments of the workforce react differently towards the green issues (Ahmed et al., 2001). Walter (1990) found that consumers concern on environmental issues does not always translate into purchasing decisions.

However, Dagnoli (1990) and Bang, Ellinger, Hadjimarcou, & Traichal (2000) found that consumers who are more concern towards environment issues will still switched to purchase green products even its price much higher than non-green or less eco-friendly products. Kim and Choi (2005) pointed out that people with high concerning to the environmental issues are willing to buy green products and vice versa.

Suchard and Polonski (1991) stated that ethical consumption was one of the purchasing behaviour expressed by consumers who are concern about the environment. These kinds of consumers will only buy green products and check the packaging material of products.

Many researchers proved that environment concern has positively and significantly influence on consumers' behaviour to purchase green product (Roberts and Bacon, 1997; Van Liere and Dunlap, 1981; Bamberg, 2003). According to Said (2003), health issues cause the need of high concerning towards environmental. Therefore, Kim et al. (2005) revealed that people with high concerning to the environmental problems are more willing to buy eco-friendly products and vice versa. Besides, consumers who are willing to pay higher price for renewable energy indicated that they are more caring and conscious to the problems appear in their environmental as compare to others who are not caring to their surroundings Bang et al., 2000).

The level of people's towards environmental concern is associated with their interest and desire to purchase green products\_ (Biswas, Liecata, McKee, Pullig & Daughtridge, 2000; Mainieri, Barnett, Unipan & Oskamp, 1997; Schwepker & Cornwell, 1991). Hence, environmental concern would be an essential factor for marketers as they can easily target environmentally conscious consumers (Mostafa, 2007).\_Meanwhile, Lee (2008) found that the second factor influencing the green purchasing behaviour of youth in Hong Kong is environmental concerns.

According to the Environmental Management and Coordination Act (EMCA) 2012, environmental management refers to the protection, conservation and sustainable use of the various elements or components of the environment. The Act further defines the environment as the physical factors of the surroundings of human beings including land, water, atmosphere, climate, sound, odour, taste, the biological factors of animals and plants and the social factor of aesthetics and includes both the natural and the built environment (GoK, 2012). The Act provides guidelines that are to be followed by both individuals and organizations in protecting and managing the environment. It also outlines the consequences that will be met when an organization or individual violates the provisions of the Act.

The objective of environmental management is to achieve improved human life quality. It involves the use of resources to administer the use of both natural and economic goods and services. Environmental management is therefore based on the principles of achieving natural balance. Environmental management uses systems analysis and conflict resolution to distribute the costs and benefits of development activities throughout the affected populations and seeks to protect the activities of development from natural hazards. Conflict identification is one of the more important tasks in environmental management planning and the resolution of conflicts is a fundamental part of what makes up "environmentally sound development (Clarke, 2012).

Organizations of all kinds are increasingly concerned with achieving and demonstrating sound environmental performance by controlling the effect of their activities, products and services on the environment, consistent with theirenvironmental policy and objectives. They do so in the context of increasingly stringent legislation, the development of economic policies and other measures that foster environmental protection, and increased concern expressed by interested parties about environmental matters and sustainable development. (Csaba & Nickolet, 2008). Environmental management is therefore not the conservation of the environment solely for the environment's sake, but rather the conserve-action of the environment for humankind's sake (Csaba & Nickolet, 2008).

Information technology plays a very significant role in the management of the environment. Most organizations are now interested in adopt information technology that has limited harm to the environment. For instance, every computer generates some level of carbon dioxide and information technology has ensured that the volume of carbon dioxide generated is minimized as much as possible through green IT practices (Clarke, 2012).

According to Alibeli and Johnson (2009), environmental concern indicates the extent to which people are aware of the environmental issues and the willingness of them to solve the environmental problems. Several authors correlated environmental concern to environmental friendly behaviour. Lee (2008) defined environmental concern as the "degree of emotional involvement in environmental issues". Environmental concern also refers to emotional disposition of consumers such as the anger toward destruction of nature (Aman et al., 2012). In this current study, environmental concern can be referred as the emotional involvement of the consumers in environmental issues and they are aware and willing to solve those problems.

Many studies were investigated on the influence of environmental concern on green purchasing behaviour (Irawan & Darmayanti, 2012; Aman et al., 2012; Albayrak et al., 2013). According to Irawan and Darmayanti (2012), they stated that environmental concern has significant influence on green purchase behaviour among the university students in Indonesia. Albayrak et al. (2013) have conducted a research to examine the environmental concern and skepticism level of respondents with their green purchase behaviour in Turkey. The authors found out that environmental concern is the determinant of behavioural intention but skepticism has negative impact on it. Moreover, a study of Aman et al. (2012) had been conducted to examine the influence of environmental knowledge and concern on green purchasing intention on 384 Sabahan consumers. The research finding also showed that environmental concern has significance influence on the green purchasing intention. This study used attitude as the mediating variable. The authors figured out that the higher level of environmental concern has positive impact on consumers' attitude and hence this attitude will lead to the green purchase intention.

#### **Research Problem**

This study was able to identify many problems regarding this concept. Particularly, companies following green marketing should do their activities without breaking rules and regulations of environmental marketing leading consumers or industry in a correct way towards the wellbeing of the environment.

The awareness on importance of utilizing green products in our day to day life is very poor among the consumers. As a measure to decrease global warming, environmentalists and people conscious of social protection spread its importance all over the world. Some of the previous researchers have emphasized on the four Concepts on the "demographics, green lifestyle (Solomon at al 2010, p. 401) green attitudes and green behavioral intentions in the context of the low involvement product category" (Florenthal and Arling, 2011, p.35). However, it is difficult to include the entire green marketing producers and customers through research.

Banks have responsibilities in providing support to the governmental efforts towards reducing carbon emission as they are Socially Responsible Corporate Citizens (SRCC). Green banking is the way for the banks to take part in the sustainable development of our country. The factors that lead commercial banks toward green banking concept in this competitive environment will be identified in this research.

Though balancing economic and environmental performance is a strategic issue, stakeholders expect to adopt sustainable business practices from banks. In deciding conditions for implementing green banking and to increase the banking value of a bank, the manager of it is able to take our framework for a successful decision. This study is suitable and relevant in this situation where there is an awareness of climatic changes. The suitable factors that are essential to implement green banking can be identified by the managers through this research.

## **Research Methodology**

Theoretical framework suggests that independent variable is Concern for the environment and dependent variable is intension to adopt green banking. The relations of these variables are supported on the basis of review of literature.

# Figure 1.1: Conceptual Framework



This model is developed based on the Concern for the environment, derived from adoption of green banking, Fayez Ahmad, Nurul Mohammad Zayed & Md. Ashraf Harun (2013). Based on the above model the following hypothesis was developed.

H1: Concern for the marketing environment is positively impact on intension to adoption of Green Banking Practices.

H0: Concern for the marketing environment is not positively impact on intension to adoption of Green Banking Practices.

The population refers to the entire group of people, events or things of interest that the researcher wishes to investigate. It is the group of people, events or things of interest for which the researcher wants to make inference (Sekeran and Bougie, 2013). Study population for this research identified as employees of the commercial banks in Sri Lanka.

There are 25 commercial banks are available in Sri Lanka. They are Amana Bank PLC, Axis Bank Ltd, Bank of Ceylon (BOC), Cargills Bank Ltd, Citi Bank, Commercial Bank (COM), Deutsche Bank, DFCC Bank, Habib Bank, Hatton National Bank (HNB), ICICI Bank, Indian Bank, Indian Overseas Bank, MCB Bank Ltd, National Development Bank (NDB), Nations Trust bank (NTB), Pan Asia Bank (PABC), People's Bank (PB), Public Bank Berhad, Sampath Bank (SAM), Seylan Bank (SEY), Standard Chartered bank, State Bank of India, The Hongkong and Shanghai Bank, Union bank (UB).

The total population of the study was 43,320 of employees of Commercial Banks in Sri Lanka. Out of that, 300 employees are selected as sample by using convenient sampling method. Because most of the previous banks related successful researches proceeded with the sample of 300 bank employees. Further collecting the data from whole the

employees are not possible because of their busy work & job position. Therefore in this current study, data were gathered from 300 employees of Commercial Banks in Sri Lanka.

In this research all the questions are prepared as closed questions. In general closed questions are considered as more efficient and reliable than open ended questions. In fact typical surveys tend to have more ordinal measure than any kind when asking questions that requires respondents to order their answers. In the research one of the ordinal measures called "Likert's five points rating scale" is used to require respondents to order their answers.

Section 1 of the questionnaire contains six questions about the demographic profile of the sample who take part in this research. Section 2 of the questionnaire was used to determine to what extent of Concern for the environment influencing adoption of green banking in Sri Lanka.

## Data Analysis

#### **Descriptive Statistics for Demographic Factors**

For the research purpose, the twelve commercial banks in Sri Lanka were selected. Out of the twelve commercial banks two State Banks and ten private banks were selected. Under state banks, BOC (53 employees) and People's Bank (59 employees) were considered. Under private banks HNB (30 employees) Commercial bank (35 employees), Sampath Bank (28 employees), Seylan Bank (22 Employees), NDB (15 Employees), NTB (20 employees), DFCC (11 Employees), PAB (10 employees), Union Bank (10 employees) and Amana Bank (7 Employees) were considered.

The designation distribution pattern of the respondents has been divided into six categories out of 300 respondents 4.30% of the employees are Office assistants, majority 45.30% of the employees are Staff assistants, 15.30% of the employees are Junior executive officers, 14.30% of the employees are Executive officers, 11.70% of the employees are Assistant managers and rest of the 9.00% of the employees are Managers.

The gender distribution of the employees out of these, 61.70% of the respondents were male and remaining 38.30% were female. Age distribution pattern of the respondents of the banks had categorized in to four classes. Among the sample, 25.30% of Staffs were found to be below 25 years, 40.30% of the employees are between 26-30 years old, 27.30% were found between 31-40 years, & 7% represents above 40 years.

The educational qualification of the respondents were classified into five categories in the questionnaire, and out of 300 respondents 42.00% of the respondents up to A/L qualification, 23.00% of the respondents had the graduation, 19% of them are CBF qualification, 13% of the respondents had the DBF qualification and remaining 3% of respondents are postgraduates .

The working distribution of the respondents out of 300 respondents, 39.70% of them have been worked less than 04 years, 31.70% have been worked between 05-08 years, 16.70% have been worked between 09-12 years, where the rest of 12.00% of the respondents have been worked more than 12 years for the banks where they have been worked.

# **Principal Component Analysis**

Univariate analysis is appropriate for any single variable to explore individual qualities of its data. The population were analyzed by central theorem analysis of median value of the variables is taken into consideration in this analysis for evaluation the level of influencing factors and green banking adoption. Regarding the objective each variable was given a scale from 1-5 to show the extent of importance based on responses. Univariate measures were calculated for each variable. The mean value is lying in the range of 1-5 and the value of each respondent for the variable compared with the median value.

Table 1.1: Median value of the factors

Factor	Median value	Influence level
Concern for the marketing environment	4.667	High level influence

## **Correlations Analysis**

The correlation analysis was used to measure magnitude and the direction of the relationship between two variables (Gupta, 1971; Field, 2000). The correlation coefficient denoted by "r" measures the degree of association between two dimensions and variables. As this study basically considers the significant relationship between them can facilitate to confirm the predictability of influence on Concern for the environment and green banking adoption.

Table 1.2: Correlation Table

Factor	Correlation with Intention to adoption of green Banking	Level of correlation	
Concern for the marketing	0.654	Strong positive correlations	
environment			

# **Regression Analysis**

In this study, influential factors are the independent variable (x) and adoption of green banking is the dependent variable (Y).

Table 1.3: Coefficient Table

Coefficients <sup>a</sup>								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.		
		В	Std. Error	Beta				
1	(Constant)	1.533	.182		8.439	.000		
	Mean_ENV	.612	.041	.655	14.942	.000		
a. Dependent Variable: Mean_ITAG								

The regression line equation is draw like this.

Intention to Adoption of Green Banking =1.533+ 0.612\*(Concern for the marketing environment).

# **Hypothesis Test**

Testing of hypothesis is one of the most important aspects of the theory of decision making. This research tests one hypothesis by using correlation and regression. A hypothesis is a statement that test one or two measureable variables. Hypothesis testing is the strategy for deciding whether a sample data offer such a support for a hypothesis, that generalization can be made. Thus, hypothesis testing enables making probability statement about population parameter.

H0: There is no positive and significant influence on variables ( $p \ge 0.05$ ) HA: There is a positive and significant influence on variables (p < 0.05). Decision: Accept HA, if p < 0.05

Hypothesis	P	α	Alternative	Null
	value	value	Hypothesis	Hypothesis
H1: Concern for the marketing environment to Intension to adoption of green banking	0.000	0.05	Accepted	Rejected

Based on the Hypothesis test it can be accepted that the Alternative Hypothesis. That means there is a positive relationship between Concern for the environment and Intention to adoption of green Banking practices.

#### **Conclusion and Recommendation**

The findings of the research the Concern for the marketing environment are high level influenced of Adopt green banking practices. But the Customers pressure moderate level influenced.

When doing the Bivariate analysis there is strong positive correlations between Concern for the environment. When doing the regression analysis Intention to Adoption of Green Banking= 1.533+ 0.612\*(Concern for the environment).

The results of the hypothesis testing shown there is relationship between Concern for the environment, Intention to Adoption of Green Banking Practices in Commercial Banks. Finally it can be said these Concern for the environment make the main reasons behind adopting green banking by Sri Lankan commercial banks. Banks are adopting green banking policy because it thinks avoiding green banking will not only create some legal problems from various stakeholders but it will also be economically wrong. Commercial banks also understand adopting green banking will improve its brand image to its market and especially among the environmentally conscious citizens. Banks are also adopting green banking to generate money, avoiding legal pressure, satisfying various stakeholders and also to protect the brand value.

There are commendable points that can be drawn from the findings of this study to increase the intention to adopt Green Banking practices in commercial Banks in Sri Lanka. Based on the facts, the following recommendations are presented to promote adopt green Banking practices.

- All the main advantages to commercial banks that can be obtained through adopting green banking must be paid attention by the Central Bank of Sri Lanka (CBSL).
- The economic advantages that can be gained by implementing green banking should be described to all the commercial banks by the Central Bank of Sri Lanka.
- The responsibility of commercial banks regarding environmental protection and the part of green banking towards this issue should also be explained by it.
- Central Bank of Sri Lanka which has the legal power as the stakeholder of the banking sector must make possibilities to enforce green banking.
- Green banking activities should be increased by commercial banks in order to attract customers and stakeholders who concern about the environmental protection.
- Steps like establishing solar panel, fully fledged internet and paperless banking etc. can be taken by commercial banks to convert their branches into green branches.
- Training regarding green banking in terms of green banking loan, internal green environment etc. should be provided to the employees.
- Environmental friendly projects should be promoted with a lower interest rate for green fund investments.
- Banks must cleverly plan to win the green banking loan market as high demand and high interest rates are the two important characteristics of it.
- The projects functioning under green funding which have a considerable failure rate must be observed carefully to make sure the commercial viability.

- As explained before the commercial banks should correctly deal through several actions with the concerns of different stakeholders like environmentalist group, civil society and CBSL who give pressure on them for green banking.
- Banks have to consider before investing in environmentally harmful projects as the future responsibility regarding pollution depends on the loan clients of commercial banks.

The findings of this study helps to improve essential suggestions regarding theories of green banking area as well as the proposed model contributes on the literature of green banking. Although some of the researches were conducted on IS an adoption earlier, implication for future green banking research is given in this study.

The experimental support in findings and observations relating to the factors that increase the adoption of green banking is provided in this study at the beginning. This model can be a subsidiary source for the academicians for further research and development of green banking adoption as some strong impressions of the factors implemented in this model has been observed.

Though balancing economic and environmental performance is a strategic issue, stakeholders expect to adopt sustainable business practices from banks. In deciding conditions for implementing green banking and to increase the banking value of a bank, the manager of it is able to take our frame work for a successful decision. This study is suitable and relevant in this situation where there is an awareness of climatic changes. The suitable factors that are essential to implement green banking can be identified by the managers through this research. Further the awareness of the bankers about green banking in their operations through their commitment and support and the pressure from customers are required within the organization to develop adoption of green banking.

#### **Limitations and Future Research**

The presented research model of green banking adoption in this research can be the foundation of hypothesis formulation for further research of it. Future research should contemplate moderation variables such as bank size, regulatory pressure, earnings and collect information from more banks.

As green banking is relatively new in Sri Lanka, this study has been unable to measure the impact of attitude to use and regulatory pressure on intension to adopt green banking, so future studies should incorporate this measure again when the adoption of green banking will be more prevalent. Also, the study on adoption intensions of green banking in Sri Lanka can be extended to the customers who are familiar with it. Comparison can then be made between customers and employees in terms of factors influencing their adoption decisions.

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