Antecedents of the intention to use green banking in Spain

Programa de Negocios y Relaciones Internacionales

Preparado por

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Bogotá, D.C, Colombia

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Nota de Aceptación

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2. TÉRMINOS DE APROBACIÓN DEL PROYECTO DE GRADO

Title
Antecedents of intention to use Green Banking Services in Spain

General Objective
Analyze the consumer antecedents of intention to use Green Banking Services in Spain.

Specific Objectives
• Investigate the Spanish people’s perception of Green Banking.
• Determine the variables related to the intention to use Green Banking Services.
• Contrast the results with the banks performance in Green Banking Services.

Hypotheses
• H1: Attitude toward green banking is positively related to the intention to use green banking in Spain
• H2: Perceived consumer effectiveness is positively related to the intention to use green banking in Spain
• H3: Perceived environmental concern is positively to the intention towards Green Banking Services
• H4: Perceived environmental integrity is positively related to the intention toward green banking in Spain

Methodology
Sample Unit: Individuals aged 16 or over, residents in Spain
Geographical scope: Spain
Instrument used for data collection: Personal questionnaire
Sample size: 221
Date of fieldwork: January to June 2017
Statistical Software: IBM SPSS
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4. ABSTRACT

The aim of the study of the antecedents of the intention to use Green Banking Services in Spain is characterized by four main constructs: Intention to use, Attitude, Perceived Environmental Concern and Perceived Environmental Integrity. For the description, a survey was given to 221 Spanish people, from January to June 2017 considering the socio demographic variables (age, education, gender). In the research, the SPSS program was used with a parametric (Pearson Correlation, Linear Regression, and ANOVA) and nonparametric technique, to analyze the findings and results. After the analysis, it was found that the variable Perceived Environmental Concern is positively related to the intention to use Green Banking Services and Perceived Environmental Integrity is positively related to the Intention to Use green banking in Spain with a Variance >.60, F> 70 and Significance equal to zero. Additionally, with respect to the demographic variables, Education is significantly different among the variables, while Gender has no significant difference. In conclusion, the Spanish population is concern about the environment, and the Banks should increase the innovative Green Banking Service to foster the population to use them. These results will help banks craft successful marketing strategies within the context of green innovation in a developing economy.

Key words: Banks, Consumer, Concern, Environment, Green Banking, Integrity
5. RESUMEN

El objetivo del estudio de los antecedentes en la intención de utilizar los Servicios de Banca Verde en España es caracterizado por cuatro hipótesis principales: Intención de uso, Actitud, Preocupación ambiental percibida, Percepción de la Integridad Ambiental. Para la descripción, se realizó una encuesta a 221 españoles, de enero a junio de 2017 considerando las variables sociodemográficas (edad, educación, género). En la investigación se utilizó el programa SPSS con una técnica paramétrica y no paramétrica (correlación de Pearson, regresión lineal y ANOVA) para analizar los hallazgos y resultados. Después del análisis, se encontró que la variable Preocupación Ambiental Percibida está relacionada positivamente a la intención de usar Servicios de Banca Verde, así como también, la variable Percepción de la Integridad Ambiental está positivamente relacionada con la intención de usar servicios de banca verde en España con una Varianza> 60, F> 70 y Significancia igual a cero. Además, dentro de las variables demográficas, el nivel de Educación tiene incidencia a la hora de usar o no servicios de banca verde y la variable Género no tiene ninguna diferencia significativa entre las variables. Por lo tanto, la población española está preocupada por el medio ambiente, pero los bancos deben usar medios atractivos para los clientes, para que éstos usen servicios de banca verde fomentando el soporte y ayuda al medio ambiente. Estos resultados ayudarán a los bancos a desarrollar estrategias de marketing exitosas dentro del contexto de la innovación ecológica en una economía en desarrollo como lo es la española.

**Palabras clave:** Banca Verde, Medio Ambiente, Integridad, Preocupación, Consumidor, bancos
6. INTRODUCTION

According to The Indian Banks Association (Trehan, 2015, pág. 1)“Green Bank is like a normal bank, which considers all the social and environmental/ecological factors with an aim to protect the environment and conserve natural resources”. It is also known as an ethical bank or sustainable bank. Their purpose is to perform banking activities with an additional plan towards taking care of earth’s ecology, environment, and natural resources including biodiversity.

Consequently, based on a study done in India about Green Banking Services, it was decided to create a new study based on the Spanish Population. According to (Bryson, 2016, pág. 9) key factors were identified to predict consumers’ intentions to use green banking services in India. “The key factors that predict 60% of the variance in intention to use green banking services are perceived environmental integrity, attitude toward green banking, environmental concern, and collectivism.”

Furthermore, study in Spain was conducted called “The ecological consumer’s profile in Spain”, in which the results show that, 36.8% of individuals behave in an environmentally friendly way, both in the ecological waste management dimension and in the environmental implication dimension. 33.6% of individuals develop recycling behaviors while 29.6% do not usually perform either of the analyzed green behaviors. “Results suggest that there are two consumer segments that may be of interest to companies that pursue the implementation of a green marketing strategy. They are the ecological and the involved-ecological consumers with a total of 66.40% of the population.” (González, 2015, pág. 21)

Taking the previous studies into consideration, the objective of this research is to analyze the antecedents of intention to use Green Banking Services in Spain, regarding to four main constructs: Intention to use, Attitude towards, Perceived Environmental Concern and Perceived Environmental Integrity, and to describe the resulting groups according to their behavioral, psychographic and socio-demographic profile such as Gender, Age, Level of Education and Willingness to pay a premium for Green Banking Services.
Hence, the research is divided into six sections. In the first section contains the Literature Review. In the current project, it was relevant to include a general overview of Green Banking Services. Therefore, the literature review is split into the world regions: Europe, Asia, North America, Latin America and Spain overview. Then, in the second part of the literature review is discussed the hypotheses concern for the study.

The third section, explains the methodology concerning to the different steps of data collection, including a quantitative research and a survey analysis in Spanish Population. In the fourth section, the results and hypotheses tested discuss the statistical models selected to find an accurate result that will explain the antecedents of intention to use Green Banking Services in Spain.

Finally, the fifth section discusses the results and the conclusion to the final model and the decision concerning the research in Spain, concluding in the sixth section the limitations of the study and the further research about Green Banking in Spain.
7. LITERATURE REVIEW

7.1 World overview
Environmental contamination is not a new concept in nowadays. Since long time ago, many intellectuals have started writing about the carbon footprint because of the industrial, technological and Human Being’s activities. One report from the BBC in 2016, 9 per 10 people in the world breath contaminated the air. (news, 2016) The main contaminated regions are East Asia, the Mediterranean and African countries, due to the fact, that more than the 90% of the deaths are caused by the high levels of contamination

One characteristic of the previous study is the fact that the countries with the highest level of contamination are countries with medium or low income. Therefore, in developing countries, 70% of industrial wastes are dumped untreated into the water supply. (Water, 2014) It is seen Industrial sector is one of the major contaminants in the whole world.

Considering the high levels of industrial contaminants, different organizations such as United of Nations and World Health Organization have been creating principles of responsible investment into the Industrial Sector (Vikas Nath, 2014) On the other hand, independent agencies were founded with the objective towards environmental management like The Environmental Protection Agency, Indian Green Banking Council, UNEP (United Nations Environment Program)

According to the IMPACT journal, “environmental management is from the risk management as it increases the quality of assets and value of enterprises”. Therefore, the agencies and organizations would establish the concept of environmental management into the industrial sector with the objective to reduce the levels of carbon footprint, increase green projects and green sustainability in companies.

Nevertheless, big companies and multinationals do not follow in the right order the assets and values of a real green chain business. Therefore, banks start to foster the population to think green and implement different services such as green banking, internet platforms and support of green projects, to show the green value chain of the banking services.
Consequently, the United of Nations promotes the use of green banking services launching the principles of responsible investment (UNPRI).

The six principles that all institutional investors should follow in the medium and long term are: the incorporation of environmental, social and corporate governance (ESG) into investment analysis and Decision Making processes, be active owners and incorporate ESG issues into the ownership policies and practices, appropriate disclosure on ESG issues by the entities in which people invest, promote the acceptance of the principles in the investment industry, work to enhance the effectiveness in implementing the principles and report the activities and progress towards the ESG issues. (PRI, 2017, pág. 1)

Since 2015, the UNPRI began the project with the purpose to develop responsible investment in the whole world. The signers of the UNPRI are in the 5 continents and more than 4,000 entities have been supporting the six principles.

On the other hand, The Equator Principles are a transnational corporate social responsibility initiative in the finance sector and is considered as one of the most important institutions that promote the green banking businesses and services.

In 2003, ten leading banks from seven countries adopted the EP-they assure a basic framework for the management of social and environmental risk in project finance. (Almaric, 2005) The equator principles categorize the banks into three groups depending on the high level of risk. The group A and B are the groups with the highest levels of risks and social responsibility programs, those banks follow the criteria of the International Finance Corporation and the World Bank Group.

During the development and analysis of Green Banking Services in Spain, is important to clarify the different institutions and organizations around the world, around Europe and around Spain that support and enhance the use of green business and sustainable policies in the financial sector. In this project, the Equator Principles will be analyzed from three perspectives: the reputation risks of the banks, the delegates that assess the environmental and social risk projects and the profitability of the industry. (Almaric, 2005)
Green Banking Services started as an initiative that promotes the use of green services such as Green Building, Paperwork, Green Investment, Carbon Emission, Green Rewards and Recycles services. According to the World Bank, there are rules and norms to financial institutions in which they should follow and support to reduce the contamination and increase the use of green business services.

Briefly explaining the strategies and services, implementation of Green Banking Services in different regions around the world.

One of the regions in which the Green Banking Services have become important in the agenda of financial institutions is in Asia. For Instance, in India, (Bryson, 2016) “Green innovation means an effective exploitation of new ideas to create environmental products and Green Banking services is directly related to Corporate Social Responsibility of the Financial Institutions.”

In Bangladesh, the green activities refer to the use of papers, the introduction of e-statement for customers, online communication through electronic files, voice mail and e-mail services. However, there is a lack of monitoring and control over the financial institutions and their Green Strategies. (Shafiqul Islam, 2013)

In Asia, many Green Banking services are regulated by the World Bank and are initiatives supported by the National Environmental Policy in India.

On the other hand, North America is considered as a precursor in adopting green banking practices. Enactment of Comprehensive Environmental Response, Compensation, and Liability Act in the US and Canadian environmental Protection Act in Canada oversee the foundation and promotion of green banking practices, not only in the region but also, in the world. (Ahmed, 2012, pág. 6) “The main financial products and services offered in North America are the focus on Home mortgage, home equity loan, auto loan, credit card and collective deposits that are lent to reduce the environmental damages.”

In Latin America as well as in Asia, Green Banking services have been growing over time. Nevertheless, instead of North America and Europe, Latin America has another perception
in the concept of Green Banking Services. The institutions in charge of the controlling and monitoring of the green business strategies in financial activities are The United Nations Industrial Development Organization, Latin American Development Bank and UNDP in Latin America.

Green Banking Services are focused in the production of goods and natural resources, mainly in vulnerable areas like the countryside, farms and Agriculture Industries. According to the OECD, the main indicators that measure the growth of Green Business Services in Latin America is the quality of life, productivity, natural resources, economic growth and social welfare. (CAF, 2015)

### 7.2 Europe overview

Global investments in clean technology have increased from USD 54 billion in 2004 to USD 260 billion in 2011 according to Bloomberg New Energy Finance Report. In North America and the Caribbean, the investment has been growing 30% in Europe, 24%, in Asia and Oceanic 39%, in Central and South America 6% and in Africa 1%, (Infosys, 2012)

Some figures around the world to compare the growth of the European countries in terms of Green Banks investment. In North America, there is evidence of the highest investment and strategies that promote the Green Business Strategy, for instance, the Connecticut Green Bank, New York Green Bank, New Jersey Energy Bank, California CLEEN1 center.

On the other hand, Europe, United Kingdom, and Switzerland are the countries with the highest Green Investment. In United of Kingdom, UK Green Investment Bank and in Switzerland, Technology Fund Switzerland.

The Green Investment Banks work independently from the governments and promote the use of Green Value Chain in financial institutions. The technology Fund in Switzerland focus in the energy efficiency, Renewable energy, Natural Resource and Conservation Technologies (OECD, 2015) and UK Green Investment Bank, focus on the offshore wind, waste recycling, and Bioenergy, energy efficiency, and small-scale renewables areas.
It is seen in Europe there are two countries who follow the rules of the Green Investment Banks and they count with two main entities in charge of all the Green Business Chain. In contrast, there is one entity in charge of different strategies and plans of the European Banks, European Investment Bank. The EIB\(^2\) uses its financing operations to give an integrated development to all the economies of the European Union.

The EIB has three main pillars; the first one is related to the quality and contribution to sustainable growth and employment, the second one is the consistency of the project with EU and EIB policies and the third one is related to EIB’s contribution to the project. (Bank T. E., 2014, pág. 4)

The concern to the environmental issues, EIB focus in the sustainability and protection of the environment, including water and wastewater, solid waste management and sustainable land. The EIB guarantee two main policies in which have the goal to reduce the carbon footprint across Europe and supporting investments for climate change mitigation and adaptation across all sectors. EIB’s sponsors are mainly the members of the EU, they have a special capital contribution to the projects that concern about the environment and Green Services that bring benefits to the society. In 2014 the Bank signed 84 environment projects for a total of EUR 12.6 bn (or 18 percent of total Bank’s annual signings) (Bank T. E., 2014)

One of the projects is related to the transportation system in Europe, such as reducing air pollution and urban congestion in Greek cities and Improving transport inter-modality in Poland. On the other hand, concern about the climate change, projects such as Reducing Environmental and climate change impacts in Italy, Protecting Spain’s natural assets and boosting Slovakia’s rural economy. (Bank T. E., 2014)

In Europe, it is seen two main entities in charge of all the green investment and green services that banks can develop to reduce the impact of contamination, one of them is the EIB and the other one is the GIB\(^3\). Furthermore, it is seen some figures that show the greenest banks in the world, in the first position, appears Santander Bank of Spain with a score of 85.1% and

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16
95% of green investments. The Second one is BNP Paribas of France and the third one is Uncredited from Italy. (Vassili, 2017) Europe dominates the list of the greenest banks in the world thanks to the big projects and influences that have over all the members of the European Union.

7.3 Asia Overview
In the first part appear the literature review with the main tendencies, concepts, and characteristics of green banking in Asia. The second part focus on the different actions, programs, and plans launched by the banks, specifically in India, Bangladesh, and China. Finally, the consumer perspective towards Green Banking and Green Products will be discussed.

In the literature review, is possible to find a huge quantity of research, definitions, and articles related to Green Banking. For instance, Indian Banks Association defines green banking as a “normal bank, which considers all the social and environmental/ecological factors with an aim to protect the environment and conserve natural resources” On the other hand, from the consumer perspective, the concept of Green Purchase Intention referred as the probability and willingness of a person to give preference to products having eco-friendly features over other conventional products in their purchase consideration. (Patterson, 1997)

In contrast, green banks in Asia are controlled by an authority, who oversees the different operational activities providing sustainable banking and sustainable banking management. Therefore, there are three phases in which the banks can support and start the Green Services. In the first phase, banks should develop green banking policies and show a serious commitment to the environment. During phase two, banks should think beyond and apply specific strategies and environmental policies, setting up and planning green branches and activities. The last phase focus in the introduction of innovative products, standard environmental reporting and continues performance evaluation. (Kong, W, 2014)

Nevertheless, there is a lack of knowledge and awareness from the customers, due to the efficiency of banks when they want to implement Green Banking Services. (Singh, 2016) In general, banks have been working in different Green services, such as paperless banking,
online banking, and mobile banking and green cards made up of recycled plastic. Even though, recent studies made by the journal of Information Technology Management, they concluded that there is a significant positive relationship between green concern and internet use. (Myung, 2014) It means, that customers can be more aware of green banking services where they can have facilities in the way of use as Internet platforms or paperless banking.

The Indian professor Suresh Chandra Bihari focuses his research in Banking Management and Credit Management. He mentioned that green banking includes promoting corporate Social Responsibility programs with the goal of protecting the environment. He emphasized when a company will be given loan only when all the environmental standards are followed. Green Banking can be implemented with the use of technology and green projects support, he highlighted. (Islam, 2013)

On the other hand, in Bangladesh is seen how Green Banking Services are taking an important part inside Banking organization and promotion. According to Ullah, Bangladesh Bank Governor argued that all need to change mindsets about environmental issues for making a better future through greening financial transactions. (Ullah, 2013) For instance, Bangladesh Bank implemented a Green Banking Guideline with three main phases: “phase one, the policy formulation and governance; the second one related to green strategic planning and specific environmental policies and the third phase designing and introducing innovative products”. (Ullah, 2013, pág. 4)

To sum up, in Asia, Green Banking Services is growing constantly. In India, many banks emphasized in Corporate Social Responsibility programs, with the objective to foster the population to get involved in Green Services. On the other hand, in Bangladesh, the Bank Government implemented strategic and specific guideline and the banks should follow those parameters to increase the awareness into the Bank Sector and the population.

Banking Sector Perspective

It is relevant to look figures in Asia to get familiar with the Banking Sector and its Corporate Social Responsibility programs. As is explained above, Green Banking refers to all the activities, programs and strategies that banks follow to reduce the carbon footprint. In Asia,
the carbon intensity measure shows that India had the highest emissions of carbon in the last
decade. However, according to (Volz, 2016) in 2011 is notable the change and the emissions
start decreasing. Bangladesh, on the other hand, presents low carbon emissions during the
last decade, even though is one of the most affected by the climate change and it has a high
risk of vulnerability.

In some International Organizations, the Asian Overview shows the presence in different
environmental agreements such as the global sustainable financial institutions, Principles for
Responsible Investment, UNEP\textsuperscript{4} Statement of Commitment by Financial institutions and
Equator Principles. However, Asia has a low rate of participation in those agreements. For
instance, in the Equator Principles, only 10 institutions signed the principles (Franck, 2005)
in the Principles of Responsible Investment only 5% of the signatories represent Asia and
only 64 out 216 Asian Institutions agreed with the UNEP Statement. (Volz, 2016)

The previous figures, point out the low scale participation of Asia into the Responsible
Investment and Principles of sustainability. According to the Asian Sustainable Investment
Review, sustainable and responsible investment is becoming one of the most important
investment parameters in the whole world, even though, in Asia is growing slowly. The Asian
countries found it an important factor driver for investment performance and the challenge
now is the enforcement of those criteria and standards of sustainability.

Bangladesh, China, and India are the leaders in the Sustainable investment asset from 2011
to 2013. That is, because institutions of those countries are motivated by Reputation and
Brand Image (88%) Legal and regulatory compliance (76%) Financial opportunity (94%) and
Risk Management (93%) (Korenian-Chabert, 2014) As a conclusion to this study, is
important to establish future strategies and stability into financial institutions, due to the
considerable importance of sustainable investment and climate risk.
Moreover, after the general financial and Responsible Investment overview in Asia is appropriate to consider how Asia is performing in terms of Green Services into Financial Institution. Two notable pioneers in green banking in Asia are China and Bangladesh.

In China, according to the China Banking Association, 21 major Chinese banks reported more than 6 trillion in lending to green projects, the main financial support toward green projects concern to Green Agriculture, forestry, energy/water, renewable energy and clean energy, especially in rural areas. (Volz, 2016)

The main authority concerned about Green Finance performance in China is the Banking Regulatory Commission (CBRC), the People’s Bank of China and the Ministry of Environmental Protection. The CBRC efforts are concentrated on the regulation of energy efficiency and emission reduction. The guidance led by CBRC highlight lack of knowledge among banks about how to assess and finance green projects. Therefore, the CBRC is actively tracking the development of Green Financial Services and Sustainable Investment. (Corporation, 2016)

Green Banking initiatives in China show the sustainable development strategy investment. By 2013 the Balance of China Development Banks loans to green projects had reached 1.191 trillion yuan, according to United of Nations (ESCAP).

One example in China is the Industrial Bank known as one of the greenest banks in the country, the IB sustainable development concept is defined as a corporate governance philosophy from shareholders’ interests with a harmonious unification of economy, society, and environment, the sustainable development focused on the concept of corporate governance. The main projects that IB support concern in poor areas, social vulnerability, and educational issues. IB was listed as the Best Green Finance Bank in the Annual Corporate Social Responsibility Awards. (Bank C. , 2017)

According to CRBC and China Banking Association, the banks who invest more in Green Lending have been increasing over time. In 2014, “the Green lending was 7.5 trillion, compared to 1.7 trillion in 2011” (Volz, 2016, pág. 11). It means, the banks have increased the total assets, the support of green projects and the adoption of Green Services.
Despite the multiple strategies and programs that China has been launched in the recent years, there is a lack of sustainable investment compare to other Global Regions. The German Development Institute gave some future challenges in the lending and investment horizon, like the climate risk and assessing environmental issues, a small number of green lending projects increase costs and reduce profitability and the real economic barriers that could appear in the economic atmosphere.

In contrast, Bangladesh has demonstrated a stable overview in terms of Green Finance organization and perspective. Bangladesh banks emphasize on environmental issues launching new branch, considering major activities to foster the use of Green Banking such as Green Banking policy, Mobile Banking, Online Banking, Internet Banking, Green Banking Budget, Environmental risk and climate risk.

The status of Green Finance in Bangladesh is distributed in the promotion of green projects, mainly in those categories: Solar Irrigation pump (23 million), Solar Home System (87 m) and Biogas plant (262 m). (Islam, 2013)

The online banking in Bangladesh has become more popular and looks promising in the future since more than 39% of the branches are equipped with online banking services. Otherwise, in Mobile Banking services, 23 banks have been given license to provide mobile services to customers, most of the banks offer 24 hours of banking services. (Islam, 2013, pág. 42)

On the other hand, the Green Services focus on house green activities come from the use of papers on both sides, use more daylight instead of electric light, efficient use of the printer, voice mail, and electronic files. According to “Green Practices in Bangladesh” 45 banks have created policies for green banking and 31 banks are fully automated.

Considering the previous information is possible to infer that Bangladesh has a well-established strategy in terms of Green Banking Services. The chairman of Indonesia Financial Services Authority Muliaman Hadad mentioned: “The sustainable Finance program is not only intended to increase financing but also to improve resilience and competitiveness of financial institutions”
One important example in Bangladesh is the Bank “The International Finance Investment and Commerce Bank” known as a prestigious private bank in Bangladesh, it has an entire program of green banking in which it focuses on different green practices such as: conserve energy, water, saving paper, online banking system, energy saving lights, internal communication via emails, E-recruitment and Introduction of Internet Protocol Technology.

Nevertheless, authorities still are working in the regulatory framework of different Green Services. The government should establish more control on the performance of Banking Sector to foster the clients and borrowers to go green. The banks should develop a culture in the organization based on green corporate governance. One suggestion could be applying a global perspective to a local environment or develop a database for technical assistance and self-evaluation.

After the overview in Bangladesh and China, in India, Green Services have a strong power into decision-making in the Banking Sector. The Green Banking Strategies are focused on financial products, such as green bank loans for environmentally friendly products, paperless banking for carbon footprint reduction, energy consciousness, green building and social responsibility services. (Bahl, 2012)

There are some examples of strategies and programs implemented by some banks in India. In April 2015, the Reserve Bank of India (RBI) began to support energy projects and drinking water facilities within the Priority Sector Lending (PSL) targets. The PSL scheme requires banks to allocate 40% of lending to key sectors such as agriculture. (Volz, 2016)

Finally, the challenges and future perspective of Green Banking in Asia from the Bank Sector Perspective suggest the commitment and adoption of specific plans and strategies in which involve the assessing and climate risk. Also, financial authorities need to control and give incentives to enhance the performance of green finance, providing support and guidance, especially in the customer position, evaluating the disposition, behavior, and interest in Green Financial Services from the population.

Consumer Perspective
After the previous information in Asia about the overview of Green Banking Services and performance seeing from the Bank perspective. It is time to emphasize in the perception of the consumer toward Green Financial Services.

According to the academic article “Green Banking in India: Problems and Prospects,” there is one study that examines the relationship between age groups and adoption of green banking product. The authors tested two hypotheses: the main usage of green banking products is independent of age and the mean usage of green banking products is not independent of age. Using the ANOVA model was determined the young generation is more committed to the environment and support the green banking products than senior and old generations.

Besides, there is another study, which emphasizes in the measure of different variables taken from Hofstede’s analysis. Taken more than 300 samples in India, the study concludes that the key factors predict 60% of the variance in intention to use green banking services are perceived environmental integrity, attitude toward green banking, environmental concern, and collectivism. (Byrson, 2016, pág. 1) this study shows more accurate results, considering the methodology used and the medium sample taken in India.

7.4 United States Overview
The United States is well recognized as one of the biggest bank investors in the whole world. The five US banks (Goldman Sachs, Morgan Stanley, JP Morgan, Citigroup and Bank of America) have shown the sole global investment banks. Compare to Europe, the United States has proved the efficiency and the power over the bank industry and the different recessions and deficits over time. Furthermore, the five big banks from the United States are getting into pole position in the investment banking market. (Schoenmarker, 2015) one of the main causes that make the US stronger in investment than Europe because Europe is over banked, downsizing considering the ongoing problems. (Schoenmarker, 2015)

Green banking services in the United States is more related to Corporate Social Responsibility programs that banks run during their performance. The banks have a big influence in the decision making of the clients, due to banking industry comprises a very important portion of the “retail” economy with significant attention from regulators and
policymakers. (Honka, 2016) According to one study made by SSRN publications, it was interviewed more than four thousand people to ask how the advertising makes them more aware of the banking industry. The result showed, consumers, search more and find better alternatives than they would otherwise. In turn, this increases the market share of smaller banks making the U.S. banking industry more competitive.

As Erhemjamts stated in the article “Corporate social responsibility and its impact on firms’ investment policy, organizational strategy, and performance” a good social performance comes at the expense of good financial performance in the bank industry.

In the United States, the most important banks are concentrated in different CSR programs. Considering the historical background of the United States and the main big financial crisis that happen during the XX century, United States shareholder activists have placed resolutions and have voiced their concerns to advocate more socially responsible corporate behavior. (Degirmencioglu, 2011)

Therefore, United States CSR programs in the banking industry have been accepted as volunteers taking as a part of the culture and traditions of the country. The objective of Green Banking is to develop and deploy clean energy and energy technologies that allow Americans to live, to work and produce using less energy and cleaner energy.

According to Think Progress Action Fund, the United States should consider a new green bank in which the main goal is to finance the transition to a low carbon economy. The United States can continue with more of the same energy policies that it has been working, but, with the objective to create more jobs for the Americans.

The suggestion of Think Progress is to work in partnership with the private sector, then green banks would facilitate the flow of private capital into renewable energy and efficiency projects. Nevertheless, those banks should overcome different weaknesses such as the lack of financing track record for new clean energy, the high risk of fluctuating fossil fuel prices and the lack of standardized finance models for existing energy efficiency technologies.
Finally, the United States is in disadvantage compared to China and South Korea, because those countries invest 1.2% of its total GDP in green programs and the economic stimulus package of green policies, meanwhile, US invest less than 1 percent of the GDP in clean energy stimulus programs. (thinkprogress, 2009)

The Equator Principles are one of the main agreements that US has signed to evaluate the level of CSR in the bank industry. Currently, five US banks have adopted the Equator Principles and Seven Canadian Banks are signatories of UNEP.

One of the banks in the US who is the concern and committed to the environment and green programs in Bank of America.

The CSR committee in 2014 had the mission to guide the further integration of responsible practices, policies, products, and programs into the core business activities. The selected CRS highlights during this year are Building Thriving Communities, in which the Bank of America supported principles for Responsible Investment, extending community investing and lending to 61 Billion of US dollars in 2014. (America, 2014)

Since 2007 Bank of America provide more than 62 billion in financing for low carbon and sustainable business activities and there is 125 billion committed by 2025 to low carbon financing. Another key point in the CSR report of the bank is the use of green bonds. The bond is exclusively used to fund the wind, solar and geothermal projects financed by the bank. Bloomberg New Energy Finance recognized Bank of America as the number one of green bonds in 2014, 2015 and 2016, getting in 2016 more than 25 billion in green bonds. (Finucane, 2017)

Important figures appear in the Bank of America to figure out how they run the Green Programs to enhance the environmental sustainability and social impact. In 2014 the bank provided 12 billion in financing to address climate change and demands on natural resources, reduced the greenhouse gas emissions by 26% from 2010 to 2014 and demonstrated the commitment to the Responsible Investment, the UN supported principles and Global Wealth and Investment Management. (America, 2014)
On the other hand, it is important to highlight the performance of Citibank, another American bank. Citibank is committed to the Equator Principles, annually they report different projects covered by Equator Principles. In total, they sponsored 10 projects within an investment of 42 billion US dollars. Those projects are related to oil and gas, infrastructure, the wind and solar energy. (Citibank, 2015)

To sum up, the United States has another perception about Green Banking Services. This perception is related to Corporate Social Responsibility programs that banks can promote and run to the social welfare and environment-friendly.

7.5 Latin America Overview
The cities in the whole world represent the 2% of the total surface of the planet, therefore, those cities create the 70% of the GDP, consume more than 60% of the energy and create more than 70% of Gas emissions, 70% of solid waste. Asia has the 53% of the total population in the world, Europe, 14% and Latin America 13%. Over time, Latin America has been growing with a fast urbanization (ALIDE, 2016)

There are different authorities in Latin America in charge of the different programs and green investment activities in the banking sector. Alide (The Latin American Association of Development Financing Institutions), CAF (Development Bank of Latin America), UNEP (United of Nations Financial Initiative) Those entities have been developing a specific study about the green growing activities created by the countries and through different indicators, those institutions evaluate the performance of the banking industry, mainly in the next countries: Colombia, Costa Rica, Ecuador, Guatemala, Peru, Mexico, and Paraguay.

In Latin America, compared to Europe and Asia, the Green Banking Services have been growing over time, not only in the banking sector but also in the society through different programs that develop the education, green economy and reduce the violence. The green growth, take an approach that measures the environmental and economic factors. The main goal of the green growth in Latin America is to give and support the basic rights of living in the best possible way. The main policies that all the entities and institutions follow are:
• Productivity: increase in productivity, waste decrease and energy consumption.

• Innovation: opportunities to innovate through the different policies and regulations.

• Disequilibrium: decrease the environmental risk in vulnerable places, such as countryside, natural resources, and natural parks.

On the other hand, the main indicators used by the institutions to measure the efficiency and performance are the environmental productivity and economic resources, natural resources and biodiversity knowledge, environmental dimension and life quality, Social and Economic growth (America D. B., 2016)

Nevertheless, Latin American banks should overcome some technical problems related to credits, financial support, Research and Development of new technologies and trends, decrease the operational risks and increase the internet security. (Cuellar, 2014) Therefore, despite the different programs that foster the use of sustainable policies and Green Financing Services, Latin America Bank industry should correct essential mistakes in the operational performance to improve the quality of the services and the loyalty of the clients.

On the other hand, is important to highlight the consumer role face to the Green Financial Services in Latin America. In the case of Latin America, there are around 5 million of organic crops and Argentina is the country with the more organic crops with more than 2 million of hectares. (Prochile, 2016)

In Latin America, the agriculture is the basement of the economy in many countries. Therefore, there is a lot of crops of organic food. For instance, according to the Colombian Agriculture and Livestock Institute Corporation, there are more than 40 thousand of hectares mainly of vegetables, coffee, and fruits. Therefore, in Latin America is possible to see the paradox between the huge number of hectares in organic crops, meanwhile, the consumer is not aware enough to consume and buy organic products. (Martinez, 2016)

Considering the variables of income, education and purchasing facilities, the green consumer profile is sensible, in general, the organic consumers come from a high income, high level of education and high life quality. Those consumers have habits and preferences in the flavor,
texture, and quality. Moreover, the main deciding factors of organic consumers are the illnesses and genetic conditions. (Rodriguez, 2002)

Finally, the green consumer profile in Latin America, taking the examples of Argentina and Colombia, is possible to conclude that the main decision factor for the consumers is the health, avoiding possible illnesses and injuries. Furthermore, 60% of the consumers identify the concept of organic and green consumer and the 40% do not know exactly what it means. In addition, the dependent variables of an ideal green consumer profile are the income, education and health condition.

To sum up, the lack of information in the population is one of the main factors of avoidance towards green products, green services and of course green investment and green banking services. There is a big gap between the financial institutions and clients, there is a misinformation, normally the clients do not know almost anything about the green services and policies of their banks.

7.6 Spanish overview
Spain is considered one of the greenest investment country in Europe, seeing that Santander Bank is the greenest bank in the world, due to all the Green management in 43 projects with a budget of 23.853 million. (Soria, 2015)

Spanish Banks signed the Equator Principles in 2013 and they have been committed to Corporate Social Responsibility Programs, Green Banking Services and the support of different Green Projects; in total five banks, have signed the principles: BBVA, Santander, Caixa, Popular, and Sabadell.

They signed to be committed with the population in first place and all the transactions and business with a high degree of sustainability in terms of the environment and society.

Moreover, the Spanish Government has launched an economic recovery plan during the crisis, known as Plan E. Under the objective of modernizing the economy, several measures related to the green agenda. Social dialogue on green issues is linked to the debate about the modernization of the economy and the promotion of Corporate Social Responsibility.
Nevertheless, the plan did not work at all during the crisis in 2009 and it became worse and worse over time as we will see during the development of this project.

As it can be inferred from the previous information, in Spain there is an authority to promote Green Investment, reduce the contamination and increase the welfare of the society. Even though, is important to understand the behavior and attitude of the population in the ecological topics, especially Green Banking Services.

In Spain, there is a lack of information in terms of ecological consumer behavior, however, the initial parameters to analyze the behavior of the population is the demographic and psychographic variables as India and Chile have done in previous studies of the population. (González, 2015)

First, is relevant to know how defines the profile of a Green Consumer. There are different variables that describe how a person is concerned about the health, welfare, the environment, the climate change and the consumption of organic food.

According to a study about consumer psychology, the ecological consumer profile depends on the behavior and the level of interest that the consumer has. The author suggests one conduct/behavioral equation in which appears the concrete attitude towards one specific topic, the number of beliefs and the judges. In general, the equation is represented as:

\[
\text{Attitude + concrete conduct} = \sum (\text{beliefs}) \times \text{judges and evaluation}
\]

It means that an ecological consumer who has a high number of positive beliefs, a positive conduct towards environmental awareness and a positive attitude can be an ideal Green Banking Consumer too.

Considering the definition of an ecological consumer, there is one recent study from Spain related to the ecological consumer profile and the authors took different variables to evaluate the population through surveys and analyze what people think about the ecological products and ecological awareness of the industry and life in general.
The variables are: the psychographic variables (knowledge, concern, intention, and values) and the socio-demographic variables (gender, age, level of education and political ideology) (González, 2015)

In the findings is stated that hypothesis 1 is verified, it means the psychographic variables influence the ecological consumer profile and the hypothesis 2 is partially verified, due to the variables: level of education and ideology are significant. Furthermore, the results show three consumer groups: Group 1 (33,6%) ecological population, Group 2 (36,8%) Ecological-involved population and Group 3 (29,6%) non-ecological population. (González, 2015, pág. 28)

Taking the psychographic variables, the knowledge, concern, intention and values have a high influence over the environment awareness, thinking, because consumers steadily replaced materialistic values by a more post-materialistic orientation, which implies that consumers with a high level of education, a high quality of their lives, high income care more about the environment. (Sánchez, 2014)

There are few studies related to Green Banking Services, even though, following those studies made in Bangladesh and India, is possible to evaluate, analyze and discuss the current situation of the Banks and the population toward Green Banking Services in Spain.

8. SECOND PART OF THE LITERATURE REVIEW

In the next section, the constructs of this research will be explained to give a clear overview about the main goal of this project. According to the previous literature review, Green Banking in Spain is the main topic of study, taking into account the opinion of the population towards the intention to use Green Banking Services. The analysis was done through a survey of 221 Spanish citizens. There are four variables to be considered in the study:

1. **Attitude toward the use of Green Banking Services:** Taking one of the 17 different definitions given by Allport (1935) attitude refers to: “A mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual ’s response to all objects and situations with which it is related”
On the other hand, according to Banaji and Heiphetz, there are two different lines in the definition of Attitude, considering the perception from Eastern and Western notions. Attitudes were assumed as cognitive (belief) and cognitive (behavioral) components. (Banaji, 2010). Furthermore, there is evidence in the fact of different measuring attitudes and techniques supported in theory. For instance, the theory of cognitive dissonance from Ajzen and Fishbein in 1980; they concluded that cognition was the core element to generate attitudes. It means attitudes were felt to be generated through the projection of self-beliefs through the behavioral and affective factors. (UK, 2013)

Nevertheless, there are some recent studies, such as Norbert Schwarz from Michigan University, he mentioned that attitudes are context dependent, hypothetical and unobservable constructs. Ultimately, he conceded that people do not have preconceived attitudes as they are formed instantly with the aid of contextual cues. Previous evaluations are felt to be stored as semantic knowledge. They are not believed to impact current appraisals or attitudes. (UK, 2013)

2. **Intention to use Green Banking Services in Spain**: the intention to use Green Banking Services in Spain, depending on main variables such as the income, age, educational level and even the gender. Therefore, in Spain, we found the difficult economic overview in the last decade. Even though, there is evidence from the Bank Sector, that Spain is one of the leaders in topics related to Green Banks like Santander or Caixa Bank. It means, despite the economic crisis, Spanish population has the intention to support green banks, green markets, and organic products. They have been influenced by the organic and green culture from the north European countries. Consequently, this research investigates different antecedents that help to predict the intention to use Green Banking Services in the Spanish Population that is favorable and will be discovered during this project.

This favorable attitude should thus be positively related to behavioral intention. Therefore, in line with this project, it was suggested:

\[ H1: \text{Attitude toward green banking is positively related} \]
3. **Perceived consumer effectiveness towards Green Banking Services**: There are a lot of studies on the Perceived consumer effectiveness that indicated various types of green and ecologically behavior among the consumers (Lee, 1999) on the other hand, a questionnaire was distributed at two universities in Istanbul and the results indicate that PCE has a significant effect on environmental attitudes, this study concluded that students with high PCE have positive attitudes toward environmental topics. (Altinigne) According to the study, little actions have potential to make big differences, meanwhile, young generations in nowadays think that they have a control over things happening in the world, they do not perceive the inconvenience of being environmentally friendly as an obstacle and they persist on their positive perspective. PCE, therefore, refers to the individual’s perception of the extent to which his or her actions can make a difference in solving environmental problems or improving the environment. (Berger, 1992) After the short overview to the definition, it was suggested:

\[ H2: \text{Perceived consumer effectiveness is positively related to intention to use green banking in Spain.} \]

4. **Perceived Environmental Concern towards Green Banking Services**: The literature presents the case that individuals who are more concerned about the environment are also more likely to adopt environmentally friendly behaviors. In the current project, it was taken the definition of Environmental concern to refer to specific psychological factors related to individuals’ propensity to engage in the pro-environmental behavior. (Schultz, 2000) therefore, environmental concern is the kind of behavior that incorporates other psychological constructs that are related to beliefs, values, attitudes, knowledge, and others. In order to incorporate different definitions and theories, we take the article “Defining and measuring environmental consciousness” of Manuel Jimenez from University Pablo de Olavide. Sevilla. Spain
to understand the three dimensions of environmental concern, affective, cognitive and active.

The affective dimension bears in mind the support for pro environmental solutions to different problems that concern for the environment (perceived as environmental degradation) as well as improving the environmental overview in terms of both global and specific problems.

The cognitive dimension includes the personal attitudes toward individual action and also the willingness to assume the costs of different environmental policies. It means, cognitive dimension measure the level of information that the people have towards environmental issues.

The active dimension, explains the pro-environment attitude and actions assume by the citizens. In the active dimension, there are different influential factors, such as the environmental activism (collective behavior) and individual behaviors such as recycling green consumerism etc.

To sum up, according to Jimenez the environmental concern combines the endorsement of pro-environmental values and the perception about environmental conditions (affective dimension) with the level of information (cognitive dimension), attitudes towards action (dispositional dimension) and engagement in pro-environmental behaviors (active dimension). (Jimenez, 2010) Therefore, it was suggested:

*H3: Perceived environmental concern is positively to intention towards Green Banking Services*

5. **Perceived Environmental Integrity**: refer environmental integrity as the reliability of the population towards the capacity of the banks in doing ethical business with a professional performance. According to the Environmental/Ecological Integrity goals, the healthy air, clean water, native plants and animals and reasonable mobility are the main factors that companies have to bear in mind to follow an ethical program. Furthermore, there is one study focus on the Antecedents of Green Purchasing
Behavior among Malaysian Consumer, in which analyzes the green purchasing behaviors of Malaysian consumers. The results show that the best predictor of green purchasing behavior is environmental attitude followed by perceived environmental responsibility; environmental concern, perceived seriousness of environmental problems, perceived effectiveness of environmental behavior and government’s role. (Sinnappan, 2011) Consequently, it was suggested:

\[ H4: \text{Perceived environmental integrity is positively related to intention toward green banking in Spain} \]

Figure 1 recapitulates our hypotheses in our initial research model.
9. METHODOLOGY

According to with the University of Manchester, Methodology implies the intention to collect data, in the methodology is necessary to state how it is addressed the research question or hypothesis. Every stage should be explained and justified with clear reasons the choice of the methods and material. (Manchester, 2017)

The methodology implemented in this project is a quantitative research made by four variables in which, those were evaluated by a questionnaire made to Spanish Population. The program used to analyze the result was IBM SPSS program, this program predictive analytics software offers techniques to find new opportunities, improve efficiency and minimize risk. SPSS works with statistical analysis and reporting, predictive modeling and data mining, decision management, and big data analysis. (IBM, 2017)

The methodology used in this project is made with a short questionnaire to measure the constructs in the initial model. The questionnaire included some modification, considering the differences in the socio-demographic distribution. First, it was implemented a quantitative questionnaire to Spanish population. Then, to make more accurate the results, it was decided to apply a short qualitative questionnaire about what people think green banking is. After, it was concluded that Spanish People support those services if the bank offers to them some rewards and benefits such as profitable rate interest or facilities in internet services.
First part Quantitative Questionnaire

First of all, is important to understand a Quantitative Research. Therefore, it was taken the definition from Leedy and Ormrod (2001) that state: quantitative research is specific in its surveying and experimentation, as it builds upon existing theories. The research itself is independent of the researcher. As a result, data is used to objectively measure reality. (Williams, 2011)

At the beginning of this project, it was taken into consideration a previous research made in India. Therefore, it was decided to apply the same model with the same questionnaire to the Spanish Population. It was a risky decision, considering the culture difference between the two cultures. The questionnaires were made face to face mainly in different schools, universities and business centers. In total, it was collected 150 questionnaires. Meanwhile, it was applied a short qualitative questionnaire to see the opinion of Spanish Population toward the definition of Green Banking. After, 40 samples it was concluded to apply the other quantitative questionnaires with the same variables and analyze the answers in SPSS.

After the data collection of the qualitative research. Respondents were screened for the following conditions: (1) they had to have a bank account; (2) they had to be capable of understanding ‘green’ banking practice as written out at the top of the questionnaire; and (3) they had to be literate in Spanish. In the header of the questionnaire, ‘green’ banking services were described as follows:

Table 1 Technical details of Investigation

<table>
<thead>
<tr>
<th>Sample Unit</th>
<th>Individuals aged 16 or over, residents in Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical scope</td>
<td>Spain</td>
</tr>
<tr>
<td>Instrument used for data collection</td>
<td>Personal questionnaire</td>
</tr>
<tr>
<td>Sample size</td>
<td>221</td>
</tr>
<tr>
<td>Date of fieldwork</td>
<td>January to June 2017</td>
</tr>
<tr>
<td>Statistical Software</td>
<td>IBM SPSS</td>
</tr>
</tbody>
</table>
‘Green’ banking refers to the banking that considers the ecological environment. ‘Green’ banking is: when banks act and do business responsibly and ensure that what the bank does will help to protect or improve the environment. (Bryson, 2016)

In total, 222 questionnaires were completed, of which 1 was discarded after screening the responses for > 0.1 missing data or non-engaged respondents, which it was taken to mean a lack of variability within the respondents’ data of < 0.5 standard deviations from the mean responses within each case. The final sample consisted of 221 Spanish respondents. See Appendix 1

10. RESULTS

It was taken a convenience sample, as random sampling is not possible without complete information. The distribution of the sample showed a high degree of individuals with a university level of education (46.6 percent Bachelor’s degree, 32.1 master degree, and 21.3 percent some university). 71.5 percent of the respondents were between 20-29 years old, 17.2 percent between 30-39 years old and 11.3 percent 19 or younger. There was a good result on gender, with 52.5 percent of the respondents being female. Overall, this sample was considered suitable for this research.

On the other hand, the willingness to pay is split as 29.9% of the people will pay 1% more to support Green Banking Services, 48% will pay 2%, 18.1% will pay 3% more and 1.8% will pay 4% more. Descriptive Statistics
Table 2  Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards Use</td>
<td>5.24</td>
<td>.540</td>
<td>220</td>
</tr>
<tr>
<td>Collectivism</td>
<td>5.07</td>
<td>.479</td>
<td>220</td>
</tr>
<tr>
<td>Perceived Consumer Effectiveness</td>
<td>4.9045</td>
<td>.91077</td>
<td>220</td>
</tr>
<tr>
<td>Perceived Environmental Concern</td>
<td>5.4886</td>
<td>.52002</td>
<td>220</td>
</tr>
<tr>
<td>Rewards</td>
<td>4.7659</td>
<td>.73464</td>
<td>220</td>
</tr>
<tr>
<td>Social Desirability Bias</td>
<td>4.8152</td>
<td>.60956</td>
<td>220</td>
</tr>
<tr>
<td>Support for Green Projects</td>
<td>4.8432</td>
<td>.67350</td>
<td>220</td>
</tr>
</tbody>
</table>

See Appendix 2. The mean refers to the average value of a random variable having that distribution. In the case of this constructs, the mean express the average of the different questions stated on the questionnaire. On the other hand, the standard deviation refers the measure of variation or dispersion of the data. In the previous table, Attitude, Collectivism and Perceived Environmental Control have a low standard deviation <.5, those constructs tend to be close to the average, it means, more accurate results on the model. Instead, the other constructs have a high standard deviation >.5 therefore, the data points are spread out over a wider range of values.

11. Analyses

One of most commonly used indicators of internal reliability in SPSS program is Cronbach Alpha coefficient of of a scale should be above 0.7 (Connelly, 2011)Cronbach alpha values are, however, quite sensitive to the number of items in the scale. With short scales (e.g. scales with fewer than ten items) it is common to find quite low Cronbach values (e.g. .5). In this case, it may be more appropriate to report the mean inter-item correlation for the items. Briggs and Cheek (1986) recommend an optimal range for the inter-item correlation of .2 to .4. (Pallant, 2011, pág. 97)
In the results, it is possible to see all the constructs, the measurement items and internal consistency. After SPSS gave the results and analysis of Cronbach coefficient, it was concluded that some of the constructs had more internal consistency with the first model. Therefore, the constructs with the more internal consistency are: Attitude, Perceived Environmental Concern, Consumer Efficacy, Intention to use and Perceived Environmental Integrity. The next step is to find the correlations among those constructs to determine the accurate result according to the SPSS program.

**Table 3 Constructs, measurement items, and internal consistency of scales**

<table>
<thead>
<tr>
<th>Construct</th>
<th>Measurement Items</th>
<th>Internal Consistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude toward green banking (A2GB)</td>
<td>Foolish ... Wise</td>
<td>Cronbach α = 0.86</td>
</tr>
<tr>
<td></td>
<td>Unfavorable ... Favourable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outdated ... Innovative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Harmful ... Beneficial</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Negative ... Positive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dishonest ... Sincere</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Uninspired ... Inspire</td>
<td></td>
</tr>
<tr>
<td>Collectivism (COL)</td>
<td>While in a group, I usually respect the majority's wish to make decisions that are</td>
<td>Cronbach α = 0.57</td>
</tr>
<tr>
<td></td>
<td>made by my group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I try to maintain harmony in my group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I support my group, whether they are right or wrong</td>
<td></td>
</tr>
<tr>
<td>Perceived Environmental Concern (PEC)</td>
<td>Humans must live in harmony with nature in order to survive.</td>
<td>Cronbach = 0.78</td>
</tr>
<tr>
<td></td>
<td>Overall, human economic activities are harming nature on our planet</td>
<td></td>
</tr>
<tr>
<td>Perceived consumer effectiveness (PCE)</td>
<td>I can have a positive effect on society by signing a petition in support of</td>
<td>Cronbach α = 0.68</td>
</tr>
<tr>
<td></td>
<td>promoting the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel I can help solve natural resource problems by conserving water and energy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I can protect the environment by buying products that are friendly to the</td>
<td></td>
</tr>
<tr>
<td></td>
<td>environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I feel capable of helping solve the environmental problems</td>
<td></td>
</tr>
<tr>
<td>Perceived environmental integrity (PEI)</td>
<td>My bank shows genuine concern for the ecological environment</td>
<td>Cronbach α = 0.88</td>
</tr>
<tr>
<td></td>
<td>My bank is competent in carrying out environmentally friendly business transactions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>My bank is honest regarding its impact on the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I trust the ability of my bank to protect the environment</td>
<td></td>
</tr>
<tr>
<td>Social Desirability (SDB)</td>
<td>If I had the time, I would like to contribute to environmental protection</td>
<td>Cronbach’s α = 0.6</td>
</tr>
<tr>
<td></td>
<td>I am really concerned about the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I like to learn about environmental issues</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Even though “green” banking costs more, I would pay extra for it</td>
<td></td>
</tr>
<tr>
<td>Support to Green Projects (SGP)</td>
<td>I’d be willing to pay higher banking fees if it means improved support for</td>
<td>Cronbach’s α = 0.42</td>
</tr>
<tr>
<td></td>
<td>environmental protection projects</td>
<td></td>
</tr>
</tbody>
</table>
I’d switch banks if one bank supported environmentally important projects and the other was just “low-cost focused.

<table>
<thead>
<tr>
<th><strong>Intention to use green banking services (I2U)b</strong></th>
<th>Cronbach’s α = 0.88</th>
</tr>
</thead>
<tbody>
<tr>
<td>I intend to use green banking services when they are available</td>
<td></td>
</tr>
<tr>
<td>I intend to use some green banking services regularly when I can do so</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation**

“Pearson correlation or Spearman correlation is used when you want to explore the strength of the relationship between two continuous variables. This gives you an indication of both the direction (positive or negative) and the strength of the relationship.” (Pallant, 2011, pág. 103)

A positive correlation indicates that one variable increase thanks to another one, on the contrary, a negative correlation indicates that one variable increases meanwhile another one is decreasing. In the next table, it is seen the correlation among the constructs and the proper relation of the variables. It is concluded, the orange one, means the negative correlation in the constructs: Rewards, Support to Green Projects and Social Desirability. On the other hand, the constructs: Intention, Attitude, Collectivism, Perceived Environmental Integrity and Perceived Environmental Concern give a positive correlation and a strength relationship among them.

**Table 4 Pearson Correlation**

<table>
<thead>
<tr>
<th>Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intent to Use</td>
</tr>
<tr>
<td>Attitude towards Use</td>
</tr>
<tr>
<td>Collectivism</td>
</tr>
<tr>
<td>Perceived Consumer Effectiveness</td>
</tr>
<tr>
<td>Perceived Environmental Control</td>
</tr>
<tr>
<td>Social Desirability Bias</td>
</tr>
<tr>
<td>Support for Green Projects</td>
</tr>
</tbody>
</table>

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40
12. HYPOTHESIS TESTING

There are two types of statistical techniques: Parametric and Non-Parametric. Parametric tests make analysis about population from which the sample has been drawn. Non-Parametric technique do not make assumptions about the underlying population distribution. Despite, Non-parametric tries to be less sensitive than Parametric one. Therefore, non-parametric are ideal when the data area measured on nominal (categorical), ordinal (ranked) scales, when the data is small and it does not worth it to parametric techniques. In the current project, it was concluded that both techniques can be applied. On one hand, Parametric technique can be analyzed by models such as: linear Regression, Pearson Correlation and ANOVA (analysis of variance). In the next section, there will be explained the models and the results gave by SPSS.

In order to find the correlation between the variables, the first hypothesis is discussed.

1. Attitude toward green banking is positively related to intention to use green banking in Spain.
According with the Pearson Correlation, it was analyzed as independent variable Intention and Dependent Variable Attitude. In conclusion, it was seen that there is not significance relation between the two variables, considering that .302 is closer to zero rather than 1.

**Table 5 Correlation**

<table>
<thead>
<tr>
<th></th>
<th>Attitude towards Use</th>
<th>Intention to Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards Use</td>
<td>Pearson Correlation</td>
<td>.302**</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>221</td>
<td>221</td>
</tr>
<tr>
<td>Intention to Use</td>
<td>Pearson Correlation</td>
<td>.302**</td>
</tr>
<tr>
<td></td>
<td>Sig. (1-tailed)</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>221</td>
<td>221</td>
</tr>
</tbody>
</table>

**.** Correlation is significant at the 0.01 level (1-tailed).

**Table 6 Model Summary**

Linear Regression, explain the effect of one variable over another one. Meanwhile, the Pearson Correlation, analyze the relation between two or more variables. Therefore, it is seen, that R square only explain 31% of the model, it means it is not significant at all.

<table>
<thead>
<tr>
<th>Model Summaryb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>a. Predictors: (Constant), Attitude towards Use</td>
</tr>
<tr>
<td>b. Dependent Variable: Intention to Use</td>
</tr>
</tbody>
</table>

According to Investopedia, ANOVA, Analysis of variance (ANOVA) is an analysis tool used in statistics that splits the aggregate variability found inside a data set into two parts: systematic factors and random factors. (Investopedia, 2017) It was evaluated the correlation
between Attitude and Intention, Intention as dependent variable and Attitude as predictor. It was gotten the next summary:

**Table 7 ANOVA Analysis**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>4.871</td>
<td>1</td>
<td>4.871</td>
<td>21.917</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>48.672</td>
<td>219</td>
<td>.222</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>53.543</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Intention to Use  
b. Predictors: (Constant), Attitude towards Use  

In the analysis of the Variance, the F value is represented by 21.9 and the P-Value is cero. It fulfilled the rules, but the F is not greater compare to the other variables. Therefore, the Attitude to Use Green Banking Services is not positively related to the Intention to Use. Furthermore, it was analyzed the results in a Histogram, in which the scores appear not reasonably normally distributed. To see more details in the Histogram, see Appendix. 3

Continue with the analysis using Linear Regression and ANOVA models, the next hypothesis is evaluated:

\[ H2: \text{Perceived consumer effectiveness is positively related to intention to use green banking in Spain} \]

The model summary suggest that Perceived Consumer Effectiveness is not a predictor of the Intention to use, considering the low correlation value between the two variables.

**Table 8 Correlations**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Intention</th>
<th>Perceive consume effectiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Intention</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>Perceive consume effectiveness</td>
<td>.245</td>
</tr>
</tbody>
</table>

43
According to the Pearson Correlation, Intention is correlated to Perceive Consume Effectiveness only in 0.245 it means, there is not strong relation between both of the variables.

On the other hand, the Model Summary shows the Coefficient of determination with a value of .030. it means, there is 30% of certainty in the explanation of the model and accuracy in the result.

**Table 9 Linear Regression**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.245a</td>
<td>.030</td>
<td>.056</td>
<td>.479</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Perceive consume effectiveness

ANOVA analysis shows the value F as 13.99. It means there is not a relation between the independent variable (Perceive consume effectiveness) and Dependent Variable (Intention).

**Table 10 ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3.217</td>
<td>1</td>
<td>3.217</td>
<td>13.999</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>50.326</td>
<td>219</td>
<td>.230</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>53.543</td>
<td>220</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Intention

b. Predictors: (Constant), Perceive consume effectiveness

To sum up, it was founded that there is not enough support to the $H2$: *Perceived consumer effectiveness is positively related to intention to use green banking in Spain*.

It was evaluated the next two hypotheses:
H4. *Perceived environmental integrity is positively related to intention toward green banking in Spain*

**H3: Perceived environmental concern is positively to intention towards Green Banking in Spain.**

According to Pearson Correlation, the independent variable (Intention to Use) is correlated in 0.60 to Perceived Environmental Integrity and 0.077 to Perceive Environmental Concern. Therefore, the PEI is more correlated to Intention to Use than PEC.

**Table 11 Correlations**

<table>
<thead>
<tr>
<th></th>
<th>Intention to Use</th>
<th>Perceived Environmental Integrity</th>
<th>Perceived Environmental Concern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Intention to Use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.604**</td>
<td>.77</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.257</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>221</td>
<td>221</td>
<td>220</td>
</tr>
<tr>
<td><strong>Perceived Environmental Integrity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.604**</td>
<td>1</td>
<td>-.110</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.103</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>221</td>
<td>221</td>
<td>220</td>
</tr>
<tr>
<td><strong>Perceived Environmental Concern</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.77</td>
<td>-.110</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.257</td>
<td>.103</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>220</td>
<td>220</td>
<td>220</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

The model Summary stated the two hypothesis as independent variables and Intention as Dependent Variable. The coefficient of determination gave a 60,1% of accuracy to Perceive Environmental Integrity and 62% to Perceive Environmental Concern. Therefore, with those results, it was founded evidence of the accuracy in the relation between Perceive Environmental Integrity and Perceive Environmental Concern with the Intention to Use Green Banking Services in Spain. See Appendix 4.
Table 12 Linear Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.609a</td>
<td>.371</td>
<td>.368</td>
<td>.391</td>
</tr>
<tr>
<td>2</td>
<td>.626b</td>
<td>.392</td>
<td>.387</td>
<td>.386</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Perceived Environmental Integrity  
b. Predictors: (Constant), Perceived Environmental Integrity, Perceived Environmental Concern  
c. Dependent Variable: Intention to Use

Also, ANOVA analysis gave the next results:

Table 13 ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>19.710</td>
<td>1</td>
<td>19.710</td>
<td>128.739</td>
<td>.000b</td>
</tr>
<tr>
<td>1</td>
<td>Residual</td>
<td>33.376</td>
<td>218</td>
<td>.153</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>53.086</td>
<td>219</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression</td>
<td>20.823</td>
<td>2</td>
<td>10.411</td>
<td>70.026</td>
<td>.000c</td>
</tr>
<tr>
<td>2</td>
<td>Residual</td>
<td>32.264</td>
<td>217</td>
<td>.149</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>53.086</td>
<td>219</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Intention to Use  
b. Predictors: (Constant), Perceived Environmental Integrity  
c. Predictors: (Constant), Perceived Environmental Integrity, Perceived Environmental Concern

Perceive Environmental Integrity and Perceive Environmental Concern are predictors of the dependent Variable with a F Value high significant and P-Value <.05. It means, the
variable has correlated each other. Consequently, H3 had F value higher than H4, it means Perceive Environmental Integrity is much closer to the intention to use rather than Perceive Environmental Concern.

Finally, the H3 AND H4 have strength support with a R squared of 37.1% and 39.2%. It means, that there is enough support and evidence that Perceive Environmental Concern and Perceive Environmental Integrity are positively related to the intention to use Green Banking Services in Spain.

**Non-Parametric Techniques**

As it was mentioned previously, the nonparametric technique makes no assumptions about the probability distributions of the variables. In the non-parametric technique, there are two independent variables, some are characterized by some small samples and fewer assumptions based on data such as variance, mean, etc.

Consequently, in this project, it was implemented a nonparametric technique, in order to evaluate and discuss the constructs with the variables (age, gender, and education). The model used is the Mann Whitney test, tests whether two samples are drawn from the same distribution, as compared to a given alternative hypothesis.

In the Mann Whitney U, a test is tested a Null hypothesis, a significance value and the result. The first independent variable tested is the Gender. It was taken all the variables specified in the project and compare with the gender. The objective is to see if the distribution of x variable is the same across all the categories of Gender. Therefore, the Hypotheses can be retained or rejected. Retained, means that there is no significant difference in the null hypothesis. On the other hand, Rejected, means that there is a significant difference with the null hypothesis.

In the case of the gender, the variables: Attitude toward use, Intention to use, Perceive Consumer Effectiveness, Perceive Environmental Concern, Perceive Environmental Integrity, Social Desirability, Support Green Projects and Rewards retain the hypothesis.
Therefore, gender is distributed the same in all the variables, there is no significant difference among those variables if we talk about gender. See Appendix 5

Furthermore, it is analyzed the level of education to indicate if this factor has incidence over the variables at the time to use Green Banking Services. Using The Kruskal-Wallis H test is a rank-based nonparametric test that can be used to determine if there are statistically significant differences between two or more groups of an independent variable on a continuous or ordinal dependent variable. (LAERD, 2017)

In the next analysis, the Independent Variable is the level of Education. After the analysis, it was determined that the level of education has significance among the variables and it is different if people have a different level of education. Therefore, the hypothesis was rejected in the next variables: Attitude, Intention, Perceive Consumer Effectiveness, Collectivism and Perceived Environmental Integrity. On the other hand, the hypothesis is retained in the Perceived Environmental Concern. For instance, in the variable Attitude to use, it was seen how is distributed the variable across the level of education. It means, depend on the level of education the person can have different attitudes toward Green Banking Services. See Appendix 6

**Graphic 1.** Independent Samples using Education as independent Variable and Attitude toward use.
After the previous Non-Parametric analysis including the independent variables (Gender and Level of Education). In this section, will be discussed the Willingness to pay into the Spanish Population. The results suggest that Spanish Respondents are concerned about the environment and there is commercial value for banks to give innovative green banking services. Therefore, it is arguable that Spanish Banks need to put the sufficient resources to develop, expand and communicate about green banking services. The average percentage of 1.8 percent for willingness to pay a premium for green bank services. See Appendix 7

**Table 14 Descriptive Statistics Willingness to pay**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willingness to Pay</td>
<td>221</td>
<td>0</td>
<td>4</td>
<td>1.87</td>
<td>.793</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>221</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 13. FINDINGS

The results, therefore, suggest that Spanish respondents are concerned about the environment and there is commercial value for banks to deliver compelling and innovative green banking service. The meaning of the previous results means that Spanish Population have the intention to use Green Banking Services in the future, but the banks should show more commitment and innovation in the way to present Green Banking Services to the customers.
Two hypothesis were verified: Perceived Environmental Concern and Perceived Environmental Integrity. Therefore, those variables are related to the intention to use those services in Spain. Also, it seemed that all the variables were distributed the same when gender was analyzed. It means, gender did not have an influence on the variables and no matter if is a woman or a man, the opinion about Green Banking Services is similar. An external evidence of the previous statement is stated in a Research Project: “Ecological Consumer Profile in Spain” where, the socio-demographic variables -gender and age- have not proved to be discriminating between the groups. (González, 2015)

On the other hand, Education Level had an influence on the variables, there were different opinions considering the level of education of the people, therefore, people concern more about the environment and they can pay extra to support Green Banking Services if they have a high level of education. For instance, people can pay between 2 to 4% more in Green Banking Services if they know that Banks support those services, reducing the impact on the environment.

The research findings have important implications for Spanish banks. This research has identified several factors that lead to intention to use green banking services. Banks that move quickly on this front face strategic advantages. Corporate Social Responsibility is a necessary factor in banks’ innovation practices and policies. This means green innovation, defined as an effective exploitation of new ideas to create environmental products, which can lead to higher profit margins (Dangelico, 2010)Green banking can, therefore, be regarded as part of an overall proactive CSR strategy (Chang, 2015)

Banks in Spain face opportunities to innovate to meet changing expectations regarding green banking practices. As it was explained in the literature review, the ecological consumer profile in Spanish Population is divided in three different views from the population. Even though, in this research, there is evidence that people are concern about the environment and They are willing to pay extra if the banks support Green Banking Services.
14. LIMITATIONS AND FURTHER RESEARCH

Further Research can be made widespread in Spain, the broader the geography the better accuracy on the results. The scope of the study included geographies not covered such as south of Spain. The sampling method is technically a statistical limitation, considering the small-medium sample of people and the difficulty to complete list of banked consumers when they were not able to do it.

Thus, main limitations concern in the quality of answer from the population, the size of the sampling and limited geography. However, further studies can improve those limitations, including alternative sampling approaches. It is suggested that both qualitative and quantitative studies can be made with the intention to use a specific defined Green Banking Service and clarify the most valuable for the consumer in terms of Perceived Consumer Effectiveness, Attitude toward Green Banking offering a specific set of green banking services or programs into the population. Finally, as future research, it would be interesting to replicate the study with consumers from other countries and to do a comparative analysis of Green Banking in different places.
15. CONCLUSION

Research Question
Antecedents of Intention to Use Green Banking Services in Spain. Composed by four hypotheses:

H1: Attitude toward green banking is positively related to intention to use green banking in Spain

H2: Perceived consumer effectiveness is positively related to intention to use green banking in Spain

H3: Perceived environmental concern is positively to intention towards Green Banking Services

H4: Perceived environmental integrity is positively related to intention toward green banking in Spain

Results
Taking the analysis from Parametric and nonparametric techniques the results suggested that the main antecedents of intention to use green banking in Spain are positively related to the Perceived Environmental Integrity and Perceived Environmental Concern. Moreover, the variable gender had no influence the distribution of the variables, meanwhile, the level of education had a high influence of the distribution.

Conclusions
After the analysis is determined that the main antecedents of intention to use green banking in Spain are related to the environmental concern and environmental integrity as well as the willingness to pay gave expectative and opportunities to the banks to foster innovative strategies to support green banking services and be closer to the clients.

On the other hand, Spanish population related the concept Green Banking to the Corporate Social Responsibilities strategies and facilities that the banks can offer to them.
16. References


ALIDE. (2016, 10 10). Financial institutions in Latin America. General Secretary of ALIDE. Retrieved from ALADI.


http://www.ifc.org/wps/wcm/connect/712ae885-5985-4fa4-9c27-a089f84f4ab7/SBN_PAPER_G20_3rd+draft_updated.pdf?MOD=AJPERES


http://www.investopedia.com/terms/a/anova.asp#ixzz4nrvrCEhuO


17. NOTES

1. CLEEN: California Lending for Energy and Environmental Needs

2. EIB: European Investment Bank

3. GIB: Global Investment Bank

18. APPENDICES

1. Appendix 1: Questionnaire

**Questionnaire: “Green” Banking**

The purpose of this study is to identify what factors influence consumers to use “green” banking services.

“Green” banking:

1) **is** when banks *act responsibly* and ensure that what the bank does will help *to protect the environment*;

2) **is** when banks *prioritize support* for environmentally responsible projects, innovative technologies, and sustainable enterprises.

This research is *independent of any commercial use*. Through your help, this survey will contribute to academic research in the area of green banking service adoption in India.

All data and findings of this survey will be of academic use only and will be kept strictly confidential!

**Please indicate your response(s) to the following:**

1. **Please indicate whether you have a bank account?** (BANKED)
   - ☐ Yes
   - ☐ No
   - ☐ I intend on getting one.

2. **If applicable to you, what bank do you primarily use?** (BANKNAME)

3. **How many years and months (approximately!) have you had a bank account?** (YEARS, MONTHS)
   - Year(s) / Months

**Please indicate your level of agreement or disagreement with the following:**

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 1 2 3 4 5 6 7 ☐</td>
<td>☐ 1 2 3 4 5 6 7 ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I can have a positive effect on society by signing a petition in support of promoting the environment. (PCE1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 1 2 3 4 5 6 7 ☐</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>I feel I can help solve natural resource problem by conserving water and energy. (PCE2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ 1 2 3 4 5 6 7 ☐</td>
</tr>
<tr>
<td>Statement</td>
</tr>
<tr>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>I can protect the environment by buying products that are friendly to the environment. (PCE3)</td>
</tr>
<tr>
<td>I feel capable of helping solve the environmental problems (PCE5)</td>
</tr>
<tr>
<td>People are extremely worried about the state of the world’s environment and what it will mean for the future. (PEC1)</td>
</tr>
<tr>
<td>Mankind is severely abusing the environment. (PEC2)</td>
</tr>
<tr>
<td>Human beings are abusing the environment producing disastrous consequences. (PEC3)</td>
</tr>
<tr>
<td>Overall, human economic activities are harming nature on our planet. (PEC4)</td>
</tr>
<tr>
<td>Humans must live in harmony with nature in order to survive. (PEC5)</td>
</tr>
<tr>
<td>If I had the time, I would like to contribute to environmental protection. (SDB2)</td>
</tr>
<tr>
<td>I am really concerned about the environment. (SDB2)</td>
</tr>
<tr>
<td>I like to learn about environmental issues. (SDB3)</td>
</tr>
<tr>
<td>Even though “green” banking costs more, I would pay extra for it. (SDB5)</td>
</tr>
<tr>
<td>I’d be willing to pay higher banking fees if it means improved support for environmental protection projects (SGP1)</td>
</tr>
<tr>
<td>“Green” banking should include more than just local reduction in the use of a bank’s resources; it should include broader measures to reduce waste. (SGP2)</td>
</tr>
<tr>
<td>I’d switch banks if one bank supported environmentally important projects and the other was just “low-cost focused.” (SGP3)</td>
</tr>
<tr>
<td>I’d support a bank that supports “green” projects (SGP4)</td>
</tr>
<tr>
<td>My bank shows genuine concern for the ecological environment. (PEI1)</td>
</tr>
<tr>
<td>My bank is competent in carrying out environmentally friendly business transactions. (PEI2)</td>
</tr>
<tr>
<td>My bank is honest regarding its impact on the environment. (PEI3)</td>
</tr>
<tr>
<td>I trust the ability of my bank to protect the environment. (PEI4)</td>
</tr>
<tr>
<td>When I am in a group, I usually respect the majority’s wish. (COL1)</td>
</tr>
<tr>
<td>I support my group, whether they are right or wrong. (COL2)</td>
</tr>
<tr>
<td>I respect decisions that are made by my group. (COL3)</td>
</tr>
<tr>
<td>I try to maintain harmony in my group. (COL4)</td>
</tr>
</tbody>
</table>
I intend to use “green” banking services the next six months. (I2U1)

I intend to use “green” banking services regularly in the future. (I2U3)

All things considered, I think using “green” banking services is: (A2U)

<table>
<thead>
<tr>
<th>Bad</th>
<th>1 2 3 4 5 6 7</th>
<th>Good</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foolish</td>
<td>1 2 3 4 5 6 7</td>
<td>Wise</td>
</tr>
<tr>
<td>Unfavourable</td>
<td>1 2 3 4 5 6 7</td>
<td>Favourable</td>
</tr>
<tr>
<td>Outdated</td>
<td>1 2 3 4 5 6 7</td>
<td>Innovative</td>
</tr>
<tr>
<td>Harmful</td>
<td>1 2 3 4 5 6 7</td>
<td>Beneficial</td>
</tr>
<tr>
<td>Negative</td>
<td>1 2 3 4 5 6 7</td>
<td>Positive</td>
</tr>
<tr>
<td>Dishonest</td>
<td>1 2 3 4 5 6 7</td>
<td>Sincere</td>
</tr>
<tr>
<td>Uninspired</td>
<td>1 2 3 4 5 6 7</td>
<td>Original</td>
</tr>
</tbody>
</table>

Please your view regarding the following:

In order to be 100% certain that my bank uses “green” banking practices, I would accept to pay increased banking fees in the amount of:

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>1%</th>
<th>2%</th>
<th>3%</th>
<th>4%</th>
<th>5%</th>
<th>6%</th>
<th>7%</th>
<th>8%</th>
<th>9%</th>
<th>10%</th>
<th>Other:</th>
</tr>
</thead>
</table>

Please indicate:

1. Your gender:
   - □ Male
   - □ Female

2. Your age:
   - □ 19 or younger
   - □ 20 – 29
   - □ 30 – 39
   - □ 40 – 49
   - □ 50 – 59
   - □ 60 or older

3. Your highest level of studies completed:
   - □ Middle school
   - □ High school
   - □ Professional certificate
   - □ Some university
   - □ Bachelor’s degree
   - □ Master’s degree
   - □ Doctoral degree
   - □ Other:

Thank you for participating in this research project!

v2.1
2. **Appendix 2: Histograms**

- Attitude toward Green Banking Services

![Histogram](image)

- Collectivism
- Intention to use

- Perceived Consumer Effectiveness
- Perceived Environmental Concern

- Perceived Environmental Integrity
Appendix 3. Histogram using dependent variable: Intention compare to Attitude toward use.
Appendix 4: Histogram: Dependent Variable compare to Perceive Environmental Concern and Perceive Environmental Integrity
Appendix 5: Mann Whitney U test using the gender as independent Variable

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Test</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The distribution of Attitude towards Use is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.864</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>2. The distribution of Collectivism is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.402</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>3. The distribution of Expectations is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.654</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>4. The distribution of Intention to Use is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.861</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>5. The distribution of Perceived Consumer Effectiveness is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.427</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>6. The distribution of Perceived Environmental Concern is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.705</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>7. The distribution of Perceived Environmental Integrity is the same across categories of Gender.</td>
<td>Independent Samples Mann-Whitney U Test</td>
<td>.988</td>
<td>Retain the null hypothesis.</td>
</tr>
</tbody>
</table>
Appendix 6: Independent Samples Kruskal Wallis Test using Level of Education as independent variable

### Hypothesis Test Summary

<table>
<thead>
<tr>
<th>Null Hypothesis</th>
<th>Test</th>
<th>Sig.</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The distribution of Attitude towards Use is the same across categories of Education.</td>
<td>Independent-Samples Kruskal-Wallis Test</td>
<td>.002</td>
<td>Reject the null hypothesis.</td>
</tr>
<tr>
<td>2 The distribution of Collectivism is the same across categories of Education.</td>
<td>Independent-Samples Kruskal-Wallis Test</td>
<td>.002</td>
<td>Reject the null hypothesis.</td>
</tr>
<tr>
<td>3 The distribution of Expectations is the same across categories of Education.</td>
<td>Independent-Samples Kruskal-Wallis Test</td>
<td>.175</td>
<td>Retain the null hypothesis.</td>
</tr>
<tr>
<td>4 The distribution of Intention to Use is the same across categories of Education.</td>
<td>Independent-Samples Kruskal-Wallis Test</td>
<td>.000</td>
<td>Reject the null hypothesis.</td>
</tr>
<tr>
<td>5 The distribution of Perceived Consumer Effectiveness is the same across categories of Education.</td>
<td>Independent-Samples Kruskal-Wallis Test</td>
<td>.000</td>
<td>Reject the null hypothesis.</td>
</tr>
<tr>
<td>6 The distribution of Perceived Environmental Concern is the same across categories of Education.</td>
<td>Independent-Samples Kruskal-Wallis Test</td>
<td>.629</td>
<td>Retain the null hypothesis.</td>
</tr>
</tbody>
</table>

Appendix 7: Histogram distributed in Willingness to pay