Role of eco loans in the advancement of renewable energy technologies

Dr. Alexander V. Gutierrez

1 Our Lady of Fatima University, Philippines

Abstract. The Philippine Central Bank is aware of the effects of climate change and other factors such as environmental and social risk that could disrupt the banking industry. Financial stability is one of the main concerns specifically in its effects in banking operations and financial interests. The study aims to explore the possibility of providing eco loans from Philippine Banks for the advancement of sustainable energy technologies in homes and industries. The study used the Delphi method and interviewed several experts from the banks. The results show that majority of them do not have an Eco-Loans in their respective banks. However, the majority of the experts stated that it is possible to offer this as part of their banks’ loan portfolio. The experts also suggested that the purpose of the loan should be for purchase of solar panels, inverter appliances and also could be used in the construction of green building.

1 Introduction

The Philippine Central Bank is aware of the effects of climate change and other factors such as environmental and social risk that could disrupt the banking industry. Financial stability is one of the main concerns specifically in its effects in banking operations and financial interests. In providing credit, banks are still the dominant institution [1]. The Bangko Sentral ng Pilipinas (BSP) acknowledged the important role of banking industry in the aspect of sustainability.

One of the objectives of the Philippine Government is to decarbonized energy sector by 2030. Furthermore, the country wants to achieve 35% share on renewable energy. To help achieve this objective, the financial sector through its policy making body issued a circular that adopt sustainable principles [2]. The study aims to explore the possibility of providing eco loans from Philippine Banks for the advancement of sustainable energy technologies in homes and industries. Eco loans are investments intended for the purchase of sustainable energy technologies that will be use in homes or industries. This study contributes to the analysis of the current state of the Eco loans as should be provided by the different types of banks.

*Corresponding author: avgutierrez@fatima.edu.ph
1.1 Literature Review
People are aware of the different threats to sustainability. The depletion of our natural resources is increasingly alarming specifically in the aspects of energy security. With this, the promulgation of the use of renewable energy have been consensus in the body of literature, likewise, one of the major problems in the industry of renewable energy is funding [3]. The use of renewable energy requires a huge initial capitalization [4]. In this regard, financial institutions specifically banks, play a very significant role in the aspect of energy transition. Furthermore, a sound financial system could provide diverse ways of financing both for companies and households to adopt to the use of renewable energy. Similarly, government support is imperative [5].

In the Philippines, industries have seen the potential of using renewable energy [6]. The study of [7], indicates that the promotion of using of renewable energy is well accepted in policymaking in the area of poverty reduction. BSP circular 1128 on the subject of environmental and social risk management framework reiterated the importance of having sustainable financing. The circular instructs the bank’s board of directors to integrate the adoption of the sustainable principles that includes the environmental and social risk as identified by the bank. Furthermore, the responsibility of the implementation of the said circular rests on the senior management. Some of their responsibility is to supervised the identification, assessment, monitoring and mitigation of the risk on both environmental and social aspects. A holistic approach is required by the said circular.

In the book of [8], cited that having a high eco-loans level will increase the benefits of using renewable energy. The study of [9] indicated that eco-loans and renewable energy have a significant effect on CO2 emissions, confirming the need to actively promote both green financing and renewable energy. In similar study conducted by [10] the results showed that green finance impact on renewable energy contributes it the achievement of the United Nations objectives on sustainable development. Significant data during the pandemic shows a significant decrease in the use of carbon emission but at the same time a 10% drop in energy efficiency [11]. Companies and governments are hesitant to invest in renewable energy as the return is uncertain. With this, there is a need to change the way how initial capital will be sourced. The offering of eco loans needs to have more purposed. Government intervention is necessary to reduced information asymmetry for banks [12].

This review of the literature showed that countries recognize the significant of using renewable energy as well as the threat of using more carbon to our natural resources. The body of literature agrees in the need to increase the promotion of the used of more sustainable energy. However, the review also showed the huge amount needed to practice the use of renewable energy. Equally important in the review is the findings that having green financing or eco loans greatly helps in the reduction of carbon emission. Furthermore, in the Philippines, the potential of using renewable energy is recognized both by private sector and the government. However, results of this review indicated that green financing or offering of eco-loans in the country is currently very low. This study will try to fill this gap by exploring the possibility of offering eco-loans in the banking industry to help promulgate the use of renewable energy.

2 Materials and Methods
The study used the Delphi method [13], developed the said method in the evaluation of nuclear capacity of the Soviet Union. Delphi is used extensively to predict possible
development and to arrive at a consensus of expert opinions on issues that are difficult to predict. Delphi Method is normally used in business research [14]. In some cases, Delphi Method is used in different scenario planning [15]. Similarly, this study presented several scenarios and context on role of eco loans as can be provided by the banking industry, specifically in the advancement of renewable energy. A literature review and interviews were conducted to developed the research questionnaire which was adopted by this study. A review of the study published between 2018-2023 that deals with Eco loans and renewable energy were explored. The literature review used the current state of Eco Loans globally. Likewise, the local scenario was also reviewed. The results of this review were utilized to develop an open-ended question.

2.1 Panel of Experts

In Delphi Method panel selection is critical. In this regard criteria were set in the form of panel selection. First, experts who participated in this said study are with track record and experience in banking, specifically in loans processing and approval. Second, the diversity of the panel experts is necessary for the findings to be valid. Diversity refers to the various levels of knowledge ascertain several variables such as age, length of time in the bank, position etc. To develop the current study 12 experts were invited to participate in the study. Eventually 7 experts agreed in the conduct of the Delphi study. In terms of the number of experts needed [16], preferred quality over quantity as there is no specific numbers is really required in terms of number of experts that need to participate. In this context 7 panel experts are considered acceptable to allow the validation of the results. The respondents of the study are from the different commercial banks in the Philippines. Respondents are combination of bank managers and loan officers. Panel Experts chosen should have been a bank employee for at least 5 years and should be involve in loans processing and approval for at least 5 years as well.

<table>
<thead>
<tr>
<th>Expert</th>
<th>Position</th>
<th>Years of Experience in banking\loan processing</th>
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<tbody>
<tr>
<td>E1</td>
<td>Bank Manager</td>
<td>26 years\12 years</td>
</tr>
<tr>
<td>E2</td>
<td>Bank Manager</td>
<td>7 years\5 years</td>
</tr>
<tr>
<td>E3</td>
<td>Loan Officer</td>
<td>12 years\7 years</td>
</tr>
<tr>
<td>E4</td>
<td>Relationship Officer</td>
<td>15 years\6 years</td>
</tr>
<tr>
<td>E5</td>
<td>Loan Processing Officer</td>
<td>8 years\5 years</td>
</tr>
<tr>
<td>E6</td>
<td>Bank Manager</td>
<td>20 years\10 years</td>
</tr>
<tr>
<td>E7</td>
<td>Bank Manager</td>
<td>16 years\9 years</td>
</tr>
</tbody>
</table>

2.2 Questionnaires

The initial round was to conduct an in-depth interview among the chosen experts in which 7 out of the 15 invited agreed to be interviewed. The interview was used to formulate the best possible questions suited for the study main objective. Questions that are explored in this study pertains to the existence of Eco loans in the domestic banks in the Philippines. If non-existent a follow up question was asked if it is possible to be offered and for what purpose. Lastly, the expert respondent suggestion as to what purposed the Eco loans was sought. Experts panel were asked to answer the open-ended questions.
3 Results and Discussions

Table 2 Response of Expert

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<tr>
<td>Do you have Eco loans?</td>
<td>None</td>
<td>Yes</td>
<td>None, as per my experience.</td>
<td>None, so far</td>
<td>None, as per my experience.</td>
<td>Yes, it is possible</td>
<td>Yes, it is possible</td>
</tr>
<tr>
<td>If None, it is possible to be offered/ if Yes, what purpose</td>
<td>Yes, for people who are interested in conserving and saving energy</td>
<td>Yes, Agriculture Business Loan</td>
<td>Yes, it’s possible. A similar product we have is green time deposit, that is used to finance sustainable project, renewable energy, green buildings construction and energy efficiency.</td>
<td>Yes, probably included directly or indirectly as part of loan proceeds.</td>
<td>Yes, it’s possible. In my opinion, no need for this as the loans offered by the bank is already include comprehensiveness and client can use the borrowed money for whatever purpose.</td>
<td>Yes, it is possible</td>
<td></td>
</tr>
</tbody>
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The table above shows that 6 out of 7 expert respondents answered that currently there is no Eco loans in their banks. This is an indication that there is a lack of Eco loans in the Philippines [17]. Furthermore, [18] study was validated that there is a gap between Eco loans and renewable energy. All of the experts said that Eco loans is possible to be offered with several different purposes. One of the purposed of availing green finance as per Expert 1 is for energy conservation. Majority of the expert suggested purpose is to purchase solar panels. This is in agreement in [19], study that cited the need to used renewable energy. [20] Findings were also validated as to the contribution of eco loans in the achievement of the goals of Sustainable Development. Expert 2 indicated that there is already offering green loans specifically in agriculture loans to purchase solar and mechanical dryers. This confirms the study of [21] on the important impact of Eco loans to different industry. Expert 3-7 indicated that eco-loans have yet to be offered in their banks. However, expert 3,4, 5 and 7 cited the possibility of eco-loans being offered in bank. Expert 6 disagrees and suggested that there is no need to offer eco loans as customers should be given freedom to use the money borrowed on whatever purpose they may choose.

4 Conclusions

The use of renewable energy is generally accepted in the body of the literature globally. Eco-loans could be a significant source of funding for companies, households and even the government. The research gap showed the low availability of eco loans specifically in the Philippines. Based on the expert opinion that the current state of Eco loans in the Philippines is lacking. However, the majority of the experts stated that it is possible to be offered as part
of the bank’s loan portfolio. The experts also suggested that the purpose of the loan should be to purchase solar panel, inverter appliances and could be used in the construction of green building. The researcher suggests that to promulgate the offering of eco-loans is to integrate it as part the bank’s loan portfolio. Regulatory agencies such as the Central Banks should further enhance the sustainability activities and to issue policies that will require banks to promote the use of renewable energy through the offerings of loan products such as eco loan.

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References

2. BSP, Circular 1128, Environmental and Social Risk Management Framework. BSP Circular, (2021)


