The Relationship Between Gender Diversity and Quality of Greenhouse Gas Emission Disclosure in Indonesian Islamic Bank

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Abstract

This study aims to examine how gender diversity in Sharia Supervisory Board (SSB) affect the quality of greenhouse gas (GHG) emissions disclosure. The sample of this study consists of 64 observations (14 Islamic banks in Indonesia) during 2015-2018. The analysis of this study is using regression analysis with unbalanced panel data. It was found that gender diversity in SSB has no significant effect on quality of GHG emissions disclosure in Indonesian Islamic banks. It is probably due to the women’s representation in SSB is low. It indicates that Indonesia still faces a large gap in the percentage of women serving on boards and in leadership positions compared to men. The result is also likely to occur because SSB is still focused on its duties and responsibilities in the operational activities of Islamic banks, for example regarding the approval of new products, overseeing whether the contract is under the sharia principles, and reviewing Islamic bank financial statements.

Keywords: disclosure, GHG emission, carbon, gender diversity, feminism, SSB, corporate governance.

INTRODUCTION

Indonesia would seem to be a leader in Islamic finance because it has a dynamic emerging economy and Indonesia is the country with the world's largest Muslim population. The presence of Sharia banking further adds to the variant forms of financial institutions significantly for the development of the banking system in Indonesia. The emergence of these sharia financial institutions began with the issuance of regulations or legislation by Indonesia Bank on Law No. 7 of 1992 (revised by Law No. 10 of 1998) concerning legality of sharia banks operating in Indonesia which implements profit-sharing system. Then, the government released Law No. 21 of 2008 concerning the operational of the Indonesian Islamic banks. Up until now (March 2020), Sharia Banking Statistics records that Indonesia has 14 sharia banks (BUS), 20 sharia business units, 163 sharia community finance bank (BPRS). With these developments, the challenges of sharia banking in carrying out its activities are also getting bigger. Islamic banking, as part of the banking structure, has a role similar to other conventional general banking in meeting the needs of society and encourages sustainable national economic development. Therefore, in dealing with this
condition sharia banks should improve its performance in carrying out operational activities.

Financial industry, e.g. banking is classified as high profile industry, which they have a great risk in environmental issues than other industry (Roberts, 1992; Hackston & Milne, 1996; Zuhroh et al., 2002). Then, the corporate social responsibility (CSR) of bank in the current economic situation has become the best solution for integrating moral principles in banking activity. CSR has been defined as the voluntary integration of social and environmental concerns into the organization's decision making process (Soana, 2011).

The concept of CSR is increasingly used in the banking industry. It being perceived as a tool to develop a positive image and attract new customers (Mocan et al., 2015). Many scholars have analyzed the relationships between CSR and corporate reputation (Melo & Garrido-Morgado, 2012). Several studies have revealed more multifaceted connections between CSR and reputation characterized by interdependence, reciprocity, and/or interactive effects. In this vein, several attempts have been made to measure CSR based on reputational indicators or vice versa, and especially with respect to non-financial companies (Turker, 2009).

Furthermore, a corporation is generally encouraged to adopt CSR because of its perceived benefits to both macro and micro-performances (Wu & Shen, 2013). Macro-performance includes environmental improvement and reduction in social inequality. Micro-performance includes reputation enhancement, potential to charge a premium price for products as well as the enhanced ability to recruit and to retain high quality workers. The most attractive lure is that firms adopting CSR can gain financial benefits that are greater than the ensuing costs, thereby improving their financial performance in the long run. Accordingly, adopting CSR can be beneficial to both corporate shareholders and stakeholders, which creates a potential win–win situation.

Banks are aware of their use of public resources, and this awareness explains why many banks append a CSR section in their annual reports to explain how they give back to society (Wu & Shen, 2013). One of the major issue of CSR is climate change. It is grouped as an environmental issue.

World Resource Institute in 2020 stated that climate change is an increasingly prominent issue for banks. In the lead-up to the United Nations Framework Convention on Climate Change (UNFCCC) Conference of Parties (COP 21) in Paris, many of the world’s largest public sector and commercial banks made commitments related to climate change mitigation and adaptation, including statements of climate policy support as well as commitments to either decrease the financing of “climate problems” (e.g., coal mines) or increase the financing of “climate solutions” (e.g., renewable energy).

Banks play a variety of roles in providing finance to the real economy, including direct lending to consumers, businesses, and governments; asset management for institutional and individual clients; and securities underwriting. Through these different roles, banks affect the financing of climate problems and solutions in several ways: direct lending that contributes to climate problems and solutions at the consumer (mortgages, auto loans), business, and government levels; investment products and practices; and the underwriting of financial securities with underlying “green” and “brown” assets.

Since most large banks affect the real economy through numerous types of financial instruments and activities, tracking and reporting of climate progress across all banking activities is not necessarily relevant. Greenhouse gas (GHG) emission or carbon disclosure might be the ultimate source to find out how banks manage their climate change issue. Information about a bank’s strategies and activities and their impact on GHG emissions is vital for the decisions of stakeholders (Liao, Luo, & Tang, 2014).

Corporate’s climate strategy and decisions often involve large investments with complex and somewhat ambiguous consequences that may affect each stakeholder group in a distinct way (Liao, Luo, & Tang, 2014). Because these stakeholders may have broader objectives for example, some stakeholders may focus on financial returns whereas others are concerned with the adverse impact of the firm’s operation on the environment, so a board environmental decision may represent the compromise of conflicting demands. Therefore, a board must be sufficiently
representative to address issues raised by various stakeholders. In this decision-making context, a
diverse and independent board is more likely to provide better corporate governance through the
sharing of a broader and different range of experiences and opinions (Singh, Vinnicombe, &
Johnson, 2001), and to represent inherently discrete interest groups including financial and non-
financial stakeholders (Wang & Dewhirst, 1992).

Corporate governance is the mechanism to evolve stakeholders’ interest. The role that
corporate governance plays in CSR is well recognized (Michelon & Parbonetti, 2012), there has
been limited study on its impact on GHG disclosure (e.g. Terjesen, Sealy, & Singh, 2009). This
study fills the gap by investigating the relationship between the characteristic of corporate
governance and GHG disclosure. The importance of this study derives from competing views such
as women on corporate board can bring distinctive management style to improve board’s
effectiveness, or women’s limited experience in leadership positions could have negative effect for
board’s work practices (Nielsen & Huse, 2010). Particularly, this study manages gender diversity
on sharia supervisory board (SSB) on Indonesian Islamic banks as the characteristic of corporate
governance.

SSB is one of the uniqueness that is not owned by conventional companies and it also
play an important role in the structure of corporate governance (Hamza 2013; Srairi 2015). Sharia
governance views that companies must be managed based on the Islamic paradigm of the Qur’an
and Sunnah. Sharia is not only concerning religious rituals but also includes social, political,
economic, business, and legal dimensions (Hafeez, 2016). Based on the Islamic perspective, there
is no separation between religious and non-religious activities, so Muslims must always obey the
things that have been prescribed by God.

Moreover, this study specifies on gender diversity among SSB. Some studies show that
women’s participation in decision-making is positively correlated with the financial performance
of companies (Daily et al., 1999; Hillman et al., 2007; Terjesen et al., 2009; Niels and Huse,
2010; Fernandez-Feijoo et al., 2014; Ben-Amar et al., 2015; Liao et al., 2015; Hoang et al., 2016).
Additionally, according to a study by McKinsey & Company (2015), gender diverse companies
are 15% more likely to have financial returns above their respective national industry medians.
Inclusive and gender balanced boards are able to bring diverse perspectives to the table,
understand customer preferences better, ensure greater due diligence, and as a result make better
decisions (Post et al., 2011; Fuente et al., 2017). In addition, boards with women members are
more likely to focus on non-financial performance indicators such as customer satisfaction and
corporate social responsibility, and are better able to monitor board accountability and authority,
leading to improved corporate governance (Barako & Brown, 2008; Liao et al., 2015; Ben-Amar et
al., 2017; Hollindale et al., 2017).

In contrast, Prado-Lorenzo & Garcia-Sanchez (2010) and Kilic & Kuzey (2019) do not
find any effect of gender diversity in the boardroom on GHG disclosures. They argue that in
practice, business paradigms have not changed, but instead, at the present time, board members
continue to focus on creating strategic value, rather than on the social responsibility of the
company’s activities. In Indonesia, Anggraeni & Djakman (2017) also found that there is no
relationship between director’s feminism and CSR disclosure quality. It was probably due to the
proportion of women sitting on boards in Indonesian public companies is strikingly low. Based on
Deloitte study in 2019, the percentage of board seats held by women in Indonesia is 9.3%,
meanwhile the other ASEAN countries such us Malaysia is 20.6%, Thailand is 14.2%, Philippines
is 13.9%, and Singapore is 13.7%. Indonesia still faces a large gap in the percentage of women
serving on boards and in leadership positions compared to men and there are no references to
boardroom gender diversity or women’s representation on boards in the corporate governance
guidelines set forth by Indonesian regulatory bodies such as the IDX Stock Exchange and the OJK
financial regulatory board. This gap has created the motivation to research the impact of the
gender diversity on boards with regard to the SSB members on GHG emission disclosures in
Indonesian Islamic bank.

The remainder of this paper is organized as follows. Section 2 discusses the literature and
hypothesis development. Section 3 illustrates the methodology of this research. Section 4 discusses the econometric model used in this study and data sources and basic statistics. Section 4 presents the empirical results and the discussion. Finally, Section 5 summarizes the results.

**LITERATURE REVIEW AND HYPOTHESES**

Legitimacy theory proposes the concept of a “social contract” existing between organizations and society at large (Choi et al., 2013). It is used widely to understand the determinants of environmental and social disclosures. It suggests that environmental legitimacy is built based on the perception of an organization as environmentally responsible by relevant publics (Kuo & Chen, 2013). As a consequence of growing attention on environmental issues, the tendency of firms to engage in environmentally responsible practices increased. In this respect, firms convince stakeholders that their activities are in line with stakeholders’ expectations with regard to carbon emissions to legitimize themselves and to keep the social contract (Yunus et al., 2016). One way of doing this is to disclose their carbon management practices via several channels such as annual reports, sustainability reports and websites.

In addition, stakeholder theory posits that an entity tries to harmonize its activities with stakeholder expectations (Barako & Brown, 2008). External pressure from several stakeholder groups, including customers, non-governmental organizations (NGOs), media and local communities, tends to increase steadily in terms of environmental and social issues (Lee et al., 2015). Pressures from stakeholders force company management to disclose more information (Naser et al., 2006); therefore, stakeholders have a vital role in the social and environmental disclosures of the companies. To respond to pressures from stakeholder groups, companies may tend to engage in environmentally responsible practices and disclose them through communication channels.

There is a well-established understanding among researchers that corporate boards exercise influence over the level of corporate philanthropy. Diversity among board members is an emerging issue in corporate governance research (Catanzariti & Lo, 2011). It is defined as heterogeneity among board members, and has an infinite number of dimensions ranging from age to nationality, from religious background to functional background, from task skills to relational skills and from political preference to sexual preference (Van Knippenberg et al., 2004).

Gender diversity is one of the more interesting human aspects that has been the focus of many studies (Williams, 2003; Nalikka, 2009; Lückerath-Rovers, 2009; Adams, and Ferreira, 2009; Post et al., 2011; Bear et al., 2010; Fernandez-Feijoo et al., 2014; Al-Shaer & Zaman, 2016; Chen et al., 2016; Galbreath, 2016; Liao et al., 2015; Rao & Tilt, 2016; Saeed et al., 2016). This is because diversity among board directors improves the chances that different knowledge domains, perspectives and ideas will be considered in the decision-making process (Post et al., 2011; Liao et al., 2015).

Prior studies suggest several reasons favoring a positive relationship between board gender diversity and company disclosures. First, recruiting more female directors enhances a diversity of opinions in board discussions (Barako and Brown, 2008), thereby ensuring the consideration of a wider range of perspectives in the decision-making process and improving board communication (Bear et al., 2010). Second, firms with a diverse board will possess broader knowledge with which to identify the best strategies to manage potential conflicts among stakeholders (Harjoto et al., 2015). Hence, the presence of female directors may provide a better assessment of the needs of diverse stakeholders, which, in turn, enables a firm to make better decisions (Bear et al., 2010).

For example, prior literature suggests that, compared to male directors who are more interested in economic performance, female directors exhibit a strong orientation toward corporate social responsibility (Ibrahim & Angelidis, 1994). Similarly, appointment of independent directors, who are less aligned with management and are more likely to be inclined to encourage
firms to disclose a wider range of information demanded by stakeholders, is an effective monitoring mechanism that restricts the opportunistic behaviours of top executives assumed by agency theory (Hillman & Dalziel, 2003). Finally, a board with an environmental committee is expected to be more environmentally responsive, resulting in a more transparent GHG reporting for the firm (Peters & Romi, 2012).

However, Husted & de Sousa-Filho (2019), Muttakin et al. (2015), Margaretha dan Isnaini (2014), Handajani et al. (2014), Fernandez et al. (2012), Torchia et al. (2011), Adams & Ferreira (2009) suggest that when one woman is on the board, this woman may be a kind of token, and unable to present a unique perspective in board deliberations. Further, the cultural setting of country also plays an important role between the presence of woman on the board and CSR disclosure (Husted & de Sousa-Filho, 2019; Anggraeni & Djakman, 2017; Sudana & Arlindania, 2011). In the case of Indonesia, patriarch which is the perception that any decision was controlled by men as a head of family, could the reason any negative effect between the presence of woman on the board and CSR disclosure.

The disclosures are not only applied in conventional companies but also sharia-approved companies. Islamic Banks are conceived by their communities as having a social as well as an economic role. In this context, it is expected that social issues would be a significant component of their disclosure. Islamic Banks are required to disclose comprehensive information to their customers about how their social role is being fulfilled. Disclosure in annual reports is the principal means through which Islamic banks convey their social activities to their stakeholders.

Jannah & Asrori (2016) said that companies that conduct sharia-based business activities should carry out their activities in accordance with Islam, which is guided by the Al-Qur’an and Sunnah. However, the level of sharia disclosure was still remaining low. Some of the possible reasons behind it are the lack of pressure from their stakeholders, the secretive culture of the country and the reluctance of company to portray a decisive Islamic image (Maali et al., 2006; Haniffa & Hudaib, 2007; Azmi et al., 2016).

The existence of a SSB is one of the important features that distinguish an Islamic bank from a conventional bank. In addition to the board of directors and audit committee, the structure of sharia governance has a uniqueness that is not owned by conventional companies that also play an important role in the structure of corporate governance (Hamza 2013; Srairi 2015). To ensure those who deal with Islamic banks that their religious beliefs and tenets are being met, every Islamic bank should have a SSB. According to AAOIFI (Accounting and Auditing Organization for Islamic Financial Institutions) a Sharia Supervisory Board is a body of specialized jurists in Islamic commercial jurisprudence (Fiqh Al-mu'amalat), which is independent of the Board of Directors and has the right to be present at the Board of Directors’ meetings to verify and certify the religious aspects of their decisions.

The SSB has supervisory as well as consultative functions; it reviews the operations of its financial institutions to make sure they comply with Sharia and issues religious edict (Fatwa) regarding the legitimacy of new modes of investment and finance and whether they are sharia compliant. The main objectives of the SSB are guiding Islamic banks to set policies and regulations based on the Sharia principles and rules; approving the financial dealings from the lawful perspective; assessing information and reports such as circulars, operating and financial reports and policies; ensuring that all stakeholders of the Islamic banks and the community at large have full access to and confidence in the bank’s annual reports. This indicates that the SSB having a share in terms of making sure the disclosure of social responsibility to be issued by a company to external users. The previous study has shown that characteristic of the SSB has had a positive impact on the disclosure of corporate social responsibility, means thus are getting better board of trustees its sharia, so the disclosure of it is also are getting better (Farook et al., 2011; Rahman & Bukair, 2013). Based on the above, this paper has the following hypotheses:
H1: The presence of a woman on the SSB has an impact on quality of GHG emission disclosure in Indonesian Islamic bank.

RESEARCH METHODOLOGY

Sample
In order to analyze the relationship between gender diversity on SSB and quality of GHG emission disclosure, all the Indonesian Islamic banks for the period of 2014 - 2018 were taken. Thus, we collect 64 firms-years observations as the sample to meet our purpose. Table 1 depicts our sample.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bank Aceh Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>Bank Muamalat Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>3</td>
<td>Bank Victoria Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>4</td>
<td>BRI Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>5</td>
<td>Bank Jabar Banten Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>6</td>
<td>BNI Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>7</td>
<td>Bank Syariah Mandiri</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>8</td>
<td>Bank Mega Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>9</td>
<td>Bank Panin Dubai Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>10</td>
<td>Bank Syariah Bukopin</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>11</td>
<td>BCA Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>12</td>
<td>Maybank Syariah Indonesia</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>13</td>
<td>BTPN Syariah</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>14</td>
<td>Bank NTB Syariah</td>
<td>√</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total (per year)</td>
<td>14</td>
<td>13</td>
<td>13</td>
<td>12</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Total of Observations</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The source of our data is bank’s annual report which collected from Indonesian Stock Exchange website (www.idx.co.id) and the website of each bank.

Empirical Model and Variable Definition
The following model is used to examine our study:

\[
GHGD_{it} = \beta_0 + \beta_1 GD_{SSB_{it}} + \beta_2 LNSIZE_{it} + \beta_3 LEV_{it} + \beta_4 PROFIT_{it} + \epsilon_{it}
\]

GHGD represents the quality of GHG emission disclosure by the bank and it used as a dependent variable. This study used a content analysis approach to investigate the GHG emission disclosures of the banks. A non-weighted (binary) index was devised to examine the narrative sections of the annual and stand-alone sustainability reports (e.g. chairman or director’s statement, review of sustainability activities and discussions) for each bank. If the bank disclosed a certain item at least once, the score was assigned as 1, and 0 otherwise. Hence, GHG emission disclosure, including 18 items, was identified to measure the extent of carbon emission disclosures provided by the entities. The index used was developed based upon prior studies (Prado-Lorenzo et al., 2009; Rankin et al., 2011; Choi et al., 2013; Luo et al., 2013). The GHG emission disclosure score was calculated by dividing the items disclosed to a maximum number of items that a firm could disclose. The total GHG emission disclosure score was calculated as:
\[ \text{GHGD} = \frac{\sum_{i=1}^{t} C_i}{t} \]

Where
Ci = 0 or 1, as follows:
Ci = 0 if the disclosure item was not found;
Ci = 1 if the disclosure item was found; and
\( t \) = the maximum number of GHG emission disclosure items a bank could disclose (i.e. 18 items).

GD_SSB is an independent variable which represents the female representation on SSB. We use the percentage of women on boards to measure gender diversity on SSB. This study controls for the effect of several variables (i.e. firm size, leverage, and profitability), which have been mentioned in the prior accounting literature regarding their impact on a firm’s voluntary environmental disclosures.

Large-sized entities are under external pressure to disclose their environmental policies and practices because of their high visibility and greater public scrutiny (Yunus et al., 2016). As a result of this pressure, larger entities are more likely to voluntarily disclose their GHG emissions. Accordingly, a positive association is expected between firm size and GHG emission disclosures. Firm size was measured as the natural logarithm of total assets.

Disclosing more information about social and environmental activities may reduce possible conflicts between owners and creditors, and consequently, agency costs (Prado-Lorenzo et al., 2009). As the entities rely increasingly on creditor funding, they will make voluntary disclosures to address the expectations of the creditors (Rankin et al., 2011). Therefore, a positive relationship is expected to be found between leverage and GHG emission disclosures. The leverage was measured by the ratio of total liabilities to total assets. Firms in better financial condition would have more resources to pay the costs associated with identifying, collecting and reporting the information required for carbon emission disclosures (Choi et al., 2013). In addition, environmental disclosures could be a means of gaining public trust and legitimacy relative to the way of earning profits (Chithambo and Tauringana, 2014). Therefore, a positive relationship is expected to be observed between profitability and GHG emission disclosures. The profitability of the entities was calculated as the net income divided by the total assets (Return on Assets/ROA).

RESULT AND DISCUSSIONS

Descriptive Analysis

The descriptive statistics of the variables are exhibited in Table 2. The average of quality of GHG emission disclosure score is 20.1% and ranges from 0% to 61.11%. The result indicates that in average, Indonesian Islamic bank has a low level of GHG emission disclosure.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Min</th>
<th>Max</th>
<th>Average</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHGD</td>
<td>0</td>
<td>0.6111</td>
<td>0.2014</td>
<td>0.1815</td>
</tr>
<tr>
<td>GD_SSB</td>
<td>0</td>
<td>0.5</td>
<td>0.0391</td>
<td>0.1352</td>
</tr>
<tr>
<td>LNSIZE</td>
<td>13.403</td>
<td>18.404</td>
<td>16.112</td>
<td>1.227</td>
</tr>
<tr>
<td>LEV</td>
<td>0.0541</td>
<td>0.9682</td>
<td>0.3164</td>
<td>0.2897</td>
</tr>
<tr>
<td>PROFIT</td>
<td>-20.13</td>
<td>12.40</td>
<td>0.3732</td>
<td>4.5061</td>
</tr>
</tbody>
</table>
The descriptive statistics also shows that only 3.91% of SSB member are women. In detail, the minimum value of women on SSB is 0 and the maximum is 50% (where the total number of SSB members is 2). On average, the sample banks have a 16.112 or Rp 19.904.335 billion, 31.64% leverage, and profitability of 37.32%.

**Regression Test**

This study uses panel (pooled) data, because there are multiple individual and years. Based on Chow test, Hausman test, and Breusch-Pagan LM, we use ordinary least square (OLS) to decide the acceptance or rejection of our hypothesis.

We conduct a classic assumption tests to make sure that our regression is BLUE (Best Linear Unbias Estimator). Based on table 3, multicolinearity diagnostics concluded that there is no multicollinearity between independent variables in our model. LNSIZE has the highest tolerance value for 0.966 and followed by LEV (0.882), GD_SSB (0.818), and PROFIT (0.764), respectively. The highest variance inflation factor (VIF) was PROFIT (1.310), then it followed by GD_SSB (1.223), LEV (1.134) and for the lowest VIF value was LNSIZE (1.035). In general, the appropriate tolerance value should be higher than 0.1 and for the VIF value should be lower than 10.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>GD_SSB</td>
<td>0.818</td>
<td>1.223</td>
</tr>
<tr>
<td>LNSIZE</td>
<td>0.966</td>
<td>1.035</td>
</tr>
<tr>
<td>LEV</td>
<td>0.882</td>
<td>1.134</td>
</tr>
<tr>
<td>PROFIT</td>
<td>0.764</td>
<td>1.310</td>
</tr>
</tbody>
</table>

We used Breusch-Pagan-Godfey to test heteroskedasticity. The probability chi-square on scaled explained SS is 0.3094 and it shows more than alpha (0.05). The results conclude that the regression model is free of heteroskedasticity, so we could continue for the next phase.

**Hypothesis Analysis**

The purpose of this study is to examine whether the presence of women in SSB have a significant relationship on GHG emission disclosure. Table 4 shows the regression result based on our model. The result indicates that the coefficient on GD_SSB has no significant effect on GHG emission disclosure. Therefore, our hypotheses is rejected.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.652565</td>
<td>-0.900504</td>
<td>0.02195</td>
</tr>
<tr>
<td>GD_SSB</td>
<td>-0.076834</td>
<td>2.697428</td>
<td>0.18580</td>
</tr>
<tr>
<td>LNSIZE</td>
<td>0.000511</td>
<td>1.439254</td>
<td>0.00455***</td>
</tr>
<tr>
<td>LEV</td>
<td>0.106199</td>
<td>2.686665</td>
<td>0.07775*</td>
</tr>
<tr>
<td>PROFIT</td>
<td>0.012039</td>
<td>-2.060232</td>
<td>0.00470***</td>
</tr>
</tbody>
</table>

Adjusted R-squared 0.270648  
Prob(F-statistic) 0.000156  
N 9064

*** Significant at 1%  
** Significant at 5%  
* Significant at 10%
The result is likely to occur because SSB is still focused on its duties and responsibilities in the operational activities of Islamic banks, for example regarding the approval of new products, overseeing whether the contract is under the sharia principles, and reviewing Islamic bank financial statements. Also, the number of sharia supervisory board members in Islamic banks in Indonesia is not as many as in Islamic banks in other countries. These findings are consistent with the results of the previous studies by Hajawiyah, Siswantoro, & Dewi (2019), Nugraheni & Khasanah (2019), Qoyum, Mutmainah, & Setyono (2017), and Wardani & Sari (2019), which were also conducted in Indonesia Islamic banks. This finding also consistent with research by Prado-Lorenzo and Garcia-Sanchez (2010) and Kilic & Kuzey (2019). In this regard, the insignificant result may due to the fact that the percentage of female directors on Indonesian Islamic banks SSB is very low as Deloitte (2019) said that the percentage of board seats held by women in Indonesia is only 9.3%, meanwhile the other ASEAN countries such as Malaysia is 20.6%, Thailand is 14.2%, Philippines is 13.9%, and Singapore is 13.7%.

The result also support some previous studies such as Husted & de Sousa-Filho (2019), Muttakin et al. (2015), Margaretha dan Isnaini (2014). Handajani et al. (2014), Fernandez et al. (2012), Torchia et al. (2011), Adams & Ferreira (2009) which suggest that when one woman is on the board, this woman may be a kind of token, and unable to present a unique perspective in board deliberations. Further, the cultural setting of country also plays an important role between the presence of woman on the board and CSR disclosure (Husted & de Sousa-Filho, 2019; Anggraeni & Djakman, 2017; Sudana & Arlindania, 2011). In the case of Indonesia, patriarch which is the perception that any decision was controlled by men as a head of family, could the reason any negative effect between the presence of woman on the board and social disclosure.

Therefore, Indonesia still faces a large gap in the percentage of women serving on boards and in leadership positions compared to men and there are no references to boardroom gender diversity or women's representation on boards in the corporate governance guidelines set forth by Indonesian regulatory bodies such as the IDX Stock Exchange and the OJK financial regulatory board. This gap has created the motivation to research the impact of the gender diversity on boards with regard to the SSB members on GHG emission disclosures in Indonesian Islamic bank.

All of the control variables, LNSIZE, LEV and PROFIT had a significant impact on GHG emission disclosures. The findings indicated a highly positive significant effect created by them, in line with many prior studies (Rankin et al., 2011; Choi et al., 2013; Gonzalez-Gonzalez and Ramírez, 2016; Yunus et al., 2016; Ben-Amar et al., 2017). A number of reasons can be documented favoring a positive relationship between bank size and voluntary GHG emission disclosures. First, because large banks are subject to more intense external monitoring than smaller bank because of accountability and visibility as outlined in legitimacy theory, such banks disclose more environmental information (Cormier and Gordon, 2001). Further, a bank’s GHG emission reporting is just one part of its overall carbon mitigation activities involving a substantial investment, a long-term commitment and the establishment of a carbon management system (Luo et al., 2013). Hence, as larger entities are more visible and have more resources to engage in voluntary carbon reporting, they are more prone to disclose GHG emission information.

Leverage has a positive and significant effect on GHG emission disclosure. It is consistent with previous studies as the entities rely increasingly on creditor funding, they will make voluntary disclosures to address the expectations of the creditors (Rankin et al., 2011). Therefore, a positive relationship is found between leverage and GHG emission disclosures.
Lastly, profitability of bank also has a significant and positive effect on GHG emission disclosure. Banks in better financial condition would have more resources to pay the costs associated with identifying, collecting and reporting the information required for GHG emission disclosures (Choi et al., 2013). In addition, environmental disclosures could be a means of gaining public trust and legitimacy relative to the way of earning profits (Chithambo and Tauringana, 2014). Therefore, a positive relationship is found between profitability and GHG emission disclosures.

CONCLUSION

The presence of Sharia banking further adds to the variant forms of financial institutions significantly for the development of the banking system in Indonesia. Meanwhile, financial industry, e.g. banking is classified as high profile industry, which they have a great risk in environmental issues than other industry. Global warming and climate change have been the focus of increasing attention from researchers, governments, politicians, enterprises and civil society. The purpose of this study is to determine the effect of gender diversity in Sharia Supervisory Board (SSB) on quality of greenhouse gas (GHG) emissions disclosure. The sample of this study consists of 64 observations (14 Islamic banks in Indonesia) during 2015-2018. The analysis of this study is using regression analysis with unbalanced panel data. It was found that gender diversity in SSB has no significant effect on quality of GHG emissions disclosure in Indonesian Islamic banks. It is probably due to the women’s representation in SSB is low. It indicates that Indonesia still faces a large gap in the percentage of women serving on boards and in leadership positions compared to men.

The result is likely to occur because SSB is still focused on its duties and responsibilities in the operational activities of Islamic banks, for example regarding the approval of new products, overseeing whether the contract is under the sharia principles, and reviewing Islamic bank financial statements. Also, the number of sharia supervisory board members in Islamic banks in Indonesia is not as many as in Islamic banks in other countries.

Despite its contributions, this study is not without limitations. First, our study focused exclusively on SSB. While that by itself is a contribution, it may leave out the potential influence of top management team diversity and composition on board diversity. Future research therefore, may explore how the composition and diversity of top management teams interact and influence board composition and ultimately GHG emission disclosure. Second, our study focused on the percentage of female members and its effect on GHG emission disclosure. It could be the case that the relationship may be more nuanced in terms of how many and what background of female members on the board.
REFERENCES


