Conference Paper

# Determinants of Green Banking Adoption: A Theoretical Framework

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## Abstract

All around the world, Green Banking has gained a tremendous moment in the last few decades. The green movement in the banking sector was triggered due to the escalating global climate change being caused by environmental degradation. Mostly attributed to the manufacturing sector, it has now been realized that banks are one of the major causes of the global climate change both directly and indirectly. This has caused an increased focus and stakeholder pressure for Green Banking adoption at the global level. Based on the Institutional theory, this study proposes a framework for examining the relationship between organizational adoption determinants and the adoption of Green Banking. The proposed framework is based on Institutional theory and justified through the existing literature. The study proposes the hypothesis for examining the relationship between determinants and Green Banking adoption. External or institutional factors are proposed to play an essential role in influencing a bank's adoption of Green Banking practices. The proposed framework can be adopted by a country's regulatory authorities and the individual banks in order to identify the factors that can positively influence and facilitate the adoption of Green Banking.

**Keywords:** green banking, green banking adoption, stakeholder pressures, institutional theory, green banks.

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## 1. Introduction

The banking industry is one of the oldest industries of the world. The earliest evidence of banking activity can be traced back to 2000 BC (Goyal & Joshi, 2011). In the past, the banking industry was a major part of the capitalist system. Capitalism is an economic system which supports the generation and distribution of wealth in such a manner that the private banks control every aspect of the economy but the banks are accountable to no one except the shareholders. This school of thought advocated profit generation as the sole responsibility of banks (Kurtkaya, 2016).

In the 1980s, an opposing philosophy to the capitalist view in the form of the stakeholder approach started gaining academic attention. According to the stakeholder approach, an organization exists for the benefit of various stakeholders, not just shareholders (Clifton & Amran, 2011). The stakeholder theory proposed that an organization

produces externalities through its business activities that affect stakeholders. As a result of these externalities, stakeholders increase pressures on firms to reduce their negative and increase positive impacts. Similar to the stakeholder theory, the institutional theory also supports the stakeholder approach by arguing that creating stakeholder engagement has become necessary for organizations to establish social legitimacy (Sarkis et al., 2010).

In the 20th century, stakeholders started realizing that environmental degradation and natural resource degeneration are the greatest externalities being produced by organizations. This resulted in increasing stakeholder pressure on organizations towards reducing their adverse environmental impacts. Due to the formation of the 'Montreal Protocol on Substances that Deplete the Ozone Layer' in 1987 (UNIDO, 2014), the 'United Nations Environment Programme Finance Initiative' (UNEP- FI) in 1991, the 'United Nations Framework Convention on Climate Change' (UNFCCC) in 1992, the 'Kyoto Protocol' in 1995, the 'Equator Principles' in 2003 and the 'Paris Agreement' in 2016, stakeholder pressure was built on organization to adopt sustainable development policies and practices (SBP, 2015). Initially banks were not included in these organizations but the scenario has changed with time.

## 2. Literature Review

In the past decades, banks were perceived to be an environmentally neutral industry (Ahuja, 2015). Majority of the banks focused on various social initiatives during the incorporation of sustainability in their banking operations and paid less attention to environmental issues (Bowman, 2010; Goyal & Joshi, 2011). However, with time it was realized that banks are significantly impacting the natural environment both directly and indirectly (Meena, 2013). Due to this stakeholders have increased the pressure on banks to operate in an environmentally friendly manner (Sahoo & Prasad, 2007; Shakil et al., 2014). Globally, efforts for promoting environmentally friendly banking practices have gained momentum in the past years.

In 2012, the Sustainable Banking Network (SBN) was established by the International Finance Corporation (IFC). It is a community of banking regulators and associations from the developing countries. It is working for the adoption and development of Green Banking in the developing world in line with the international best practices (SBN, 2018; SBP, 2015). This led to the development of the concept of Green Banking. It is an emerging concept integrating the management of environmental issues with banking activities and aiming to reduce the bank's carbon footprints. It not only involves the

sustainable use of resources but also adopting green lending principles. Thus, the global banking industry shifted towards an environmentally focused strategy through the adoption of Green Banking (Ahuja, 2015). The adoption of this business ideology is highly significant in relation to the current environmental degradation, resource shortages and climate change plaguing this planet.

## 2.1. Green banking

Green Banking has gained significant momentum in the recent past (Choudhury et al., 2013). This banking ideology is targeted towards the elimination of bank's direct and indirect adverse environmental impacts (Ahmed, 2012; Singhal et al., 2014; Masukujjaman et al., 2016). It is a more focused term emphasizing environmental considerations and protection of earth and its ecosystems. Green Banking concept is an important subset of Sustainable Banking which involves promoting environmentally friendly practices that aid banks and customers in reducing their carbon footprint (SBP, 2015). As opposed to sustainable development, by its very definition, is not restricted to environmental concerns but also involves focusing on economic and social concerns (Hart & Dowell, 2011; Hart & Milstein, 2003).

The word "Green" in Green Banking directs banks' environmental accountability and performances in daily banking operations (Shaumya & Arulrajah, 2016). Merely stated, Green Banking has been defined as "banking business conducted in such areas and in such a manner that helps the overall reduction of external carbon emission and internal carbon footprint" (Bahl, 2012; Masud et al., 2018). It focuses on reducing a bank's direct and indirect adverse environmental impacts. Firstly, it focuses on the green transformation of a bank's internal operations. It involves efficient ways of utilizing renewable energy sources, automation and other pollution prevention measures to minimize the carbon footprint from banking operations. Secondly, banks focus on environmentally responsible financing through evaluating the environmental risks of the project before approving financing and fostering green initiatives and projects (Islam & Das, 2013).

Green Banking adoption is not just a change in the business operations of a bank instead it is a cultural shift within a bank and affects all aspects of the banking operations. It involves rethinking, redesigning and restructuring a bank's vision, strategic objectives, resource utilization and business

operations. Green Banking is a separate business ideology focusing solely on environmental concerns and opportunities. It requires specific policy-making and implementation guidelines since it impacts all the aspects of the banking operations. Green Banking requires the adoption, implementation and restructuring of several aspects of the banking operations (SBP, 2015).

Green Banking is a form of banking from which environmental benefits are gained. A conventional bank can adopt Green Banking by directing its core operations towards the betterment of the environment. It involves developing banking strategies that ensure the promotion of environment-friendly practices and economic development (Tu & Dung, 2016). A Green Bank focuses on environmental friendly banking practices (David & Shameem, 2017; Shaumya & Arulrajah, 2017). Green bank provides effective market-based solution for a number of environmental problems like climate change, deforestation, carbon dioxide emission and loss of biodiversity. It also identifies and creates various opportunities for the benefit of the customers and the environment. Green Banking requires prioritizing financing to the sectors that promote various environmental protection activities (Tara et al., 2015).

For a developing country, Green Banking adoption can be hindered by a number of barriers. The IFC conducted a survey in 25 developing countries regarding various dimensions of Green Banking adoption. The IFC (2015), revealed a number of barriers towards the adoption of Green Banking on the basis of the similarity in the majority of the surveyed countries including a lack of formal definition and measurement standards for Green Banking, specific to a country's individual scenario, lack of knowledge among the stakeholders regarding how to embed Green Banking into the existing banking practices and operations and the benefits of Green Banking adoption. Developing countries also suffer from insufficient government support, difficulty in attracting clients towards clean energy projects or emission reduction practices, difficulty in immediately stopping of lending to traditional high-pollution and emission sectors such as coal power stations or the oil sector, lack of practical examples or leaders in the Green Banking fields, inadequate knowledge of its business case, and higher adoption cost of certain green initiatives, such as green building and green information technology (IFC, 2012; Masukujjaman et al., 2016).

Given the increasing importance and realization of the role of the banking sector in a country's environmental well-being, currently a limited number of researches exist in the area of Green Banking (Ahmad et al., 2013; Ahuja, 2015; Bose et al., 2017; Chew et al., 2016). Limited academic research exists on Green Banking adoption from a theoretical perspective. Due to the limited theory-based research existing on Green Banking

adoption, a need has been identified in the literature to examine determinants of Green Banking adoption theoretically in the developing countries (Shaumya & Arulrajah, 2016; Shaumya & Arulrajah, 2017; Tu & Dung, 2016). A dearth of knowledge exists with respect to Green Banking, especially in the developing economies, leading to ineffective regulatory mechanism and capacity building within the banking industry.

Limited literature causes poor understanding, by industry and policymaker, of the role that banks can play in mitigating climate change and facilitating the transition towards a low-carbon economy (Bowman, 2010). Banks lack sufficient information and data for the facilitation of Green Banking adoption. This has led to an identification of a research gap and call for increased research on Green Banking adoption in the developing countries (Bose et al., 2017; IFC, 2015; Masud et al., 2018; Oyegunle & Weber, 2015; Shaumya & Arulrajah, 2017; Thi et al., 2017).

This study attempts to contribute to the area of Green Banking adoption by proposing a theoretical framework to examine the factors influencing Green Banking adoption. Importance of stakeholder involvement has been identified as a critical success factor in Green Banking adoption, especially in the developing countries (IFC, 2015). The next section will briefly discuss the theoretical background of the study.

## 3. Methodology

The theoretical framework proposed in this study is based on Institutional theory. Institutional theory is based on the external environmental pressures that an organization faces, which forces an organization to change its policies, procedures or structure. According to the theory an institution changes under external pressure in order to gain specific resources or to attain economic and social legitimacy. Institutions mean "a collective and regulatory complex consisting of political and social agencies that dominate other organizations through the enforcement of the law, rules and norms" (Dimaggio & Powell, 1983).

Institutional theory has been applied to various environmental management practices in various industries. Many researchers state that institutional theory is considered to play a significant role in analyzing a firm's adoption of environmental practices since this area is impacted by a high level of uncertainty and external pressures (Hoejmose et al., 2014; Lee et al., 2013; Lin & Sheu, 2012; Pleasant et al., 2014). External or institutional factors could play an important role in influencing a firm's decisions to implement green management practices (Hoejmose et al., 2014; Lin & Sheu, 2012). A great degree of isomorphism exists within the banking industry due to a high degree of regulations,

competition and customer expectations (Idroes, 2015). Globally, the banking industry is currently facing a high level of stakeholder pressure for adopting environmentally friendly practices (Pleasant et al., 2014). Stakeholders' pressure has an impact on a firm's environmental performance (Dimaggio & Powell, 1983). Massive penalties have been imposed on banks in some countries for disregarding environmental guidelines. For example, in the United States, many banks have been penalized by the courts for pollution of the environment by their clients, resulting in bearing huge remediation costs for banks (Bose et al., 2017).

### 3.1. Theoretical framework

The theoretical framework proposed in this study is shown in Figure 1. It consists of 4 independent variables which are derived from the institutional theory i.e. top management pressure, customer pressure, competitor pressure and community pressure. The framework proposes that these determinants influence Green Banking adoption.

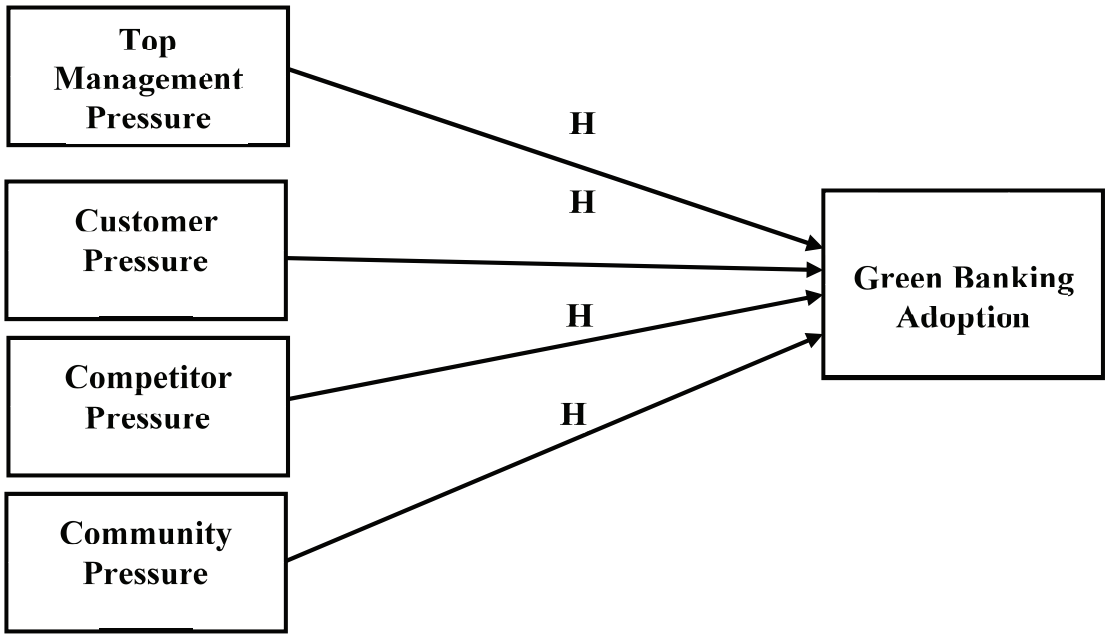


**Figure** 1: Green Banking Adoption Theoretical Framework.

Stakeholder pressures are adopted from Institutional theory as the theory proposes stakeholder engagement to be an important element for the achievement of social legitimacy (Sarkis et al., 2010). A stakeholder is defined as "all individuals and groups who are able to affect the achievement of an organization's goals or affected by the realizing process of an organization's objectives" (Freeman, 1984, p. 46). Stakeholders

are widely acknowledged as powerful influences over, and able to direct, company decisions and performance (Amran et al., 2015).

Top management pressure and customer pressure are proposed as coercive pressures put on the bank towards the adoption of Green Banking. Coercive pressures are dependency-based and a firm's top management holds the power to direct and manage the firm (Tang et al., 2013). A firm is highly dependent on the top management's commitment to the adoption of green management practices. Increased environmental commitment from the top management will exert pressure on the firm to collaborate and indulge in environmentally friendly business practices (Yen & Yen, 2012). Customers are also one of the major stakeholders of any organization (Tang et al., 2013). Banks need to consider the interests of their customers, because if banks do not focus on green practices required by its customers, then the customers might limit their normal banking activities as well (Choudhury et al., 2013). They are a major source of pressure on firms with respect to environmental performance management (Nejati et al., 2014).

Major source of mimetic pressure is the firm's competitors. Competitor pressure is developed when a firm's competitors adopt new environmental management practices or technologies and the company must re-evaluate or improve its own environmental performance to match or excel the competitor (Weng et al., 2015). The banking industry faces great mimetic pressures (Barreto & Baden- Fuller, 2006). The last independent variable of community pressure has been proposed on the basis of Institutional theory's normative pressure. Organizations face pressures from inter-organizational networks that cross the boundaries of an organization (Pleasant et al., 2014). The banks face pressure from the local community to behave in an ethical and responsible manner causing banks to adopt social isomorphism (Bose et al., 2017). Based on the theory and existing literature the next section proposes the hypotheses derived from the proposed theoretical framework for examining the influence of stakeholder pressure on Green Banking adoption.

## 4. Hypotheses Development

The following hypotheses are proposed on the basis of the theoretical framework.

### 4.1. Top management pressure and green banking adoption

Top management pressure is a type of coercive pressure existing on the bank branch. Top management is the group with the most influential and powerful executives that

have overall responsibility for the organization (Yigitbasioglu, 2015). Green Banking adoption requires commitment from the top management which helps in the adoption of green practices in daily operations. In case of the insufficient focus of senior management, banks will find it difficult to build necessary momentum for Green Banking adoption (SBP, 2015, 2017). Top management's commitment to environmental practice adoption put pressure on sub-offices to adopt environmental management systems (Chan & Wong, 2006). Research shows that top management has high importance, threatening, influencing and cooperative ability towards Green Banking adoption (Choudhury et al., 2013; Tara et al., 2015). Based on the above arguments, it is hypothesized that:-

*H1: Top management pressure will have a positive influence on Green Banking adoption.*

## 4.2. Customer pressure and green banking adoption

A firm's dependency on customers makes customer pressure an important type of coercive pressure. Customers have been identified as a major stakeholder influencing the green practice adoption of firms (Lin & Sheu, 2012). With the increasing consumer expectation regarding environmental policies and compliance requirements, the banking industry cannot escape this wave of environmental consciousness (Ahuja, 2015; Bowman, 2010). The customer has both direct and indirect influence and importance to accelerate the Green Banking adoption (Choudhury et al., 2013). The awareness and pressure from customers regarding environmental issues have a positive impact on Green Banking adoption (Bose et al., 2017; David & Shameem, 2017). Therefore, the following hypothesis is proposed:-

*H2: Customer pressure will have a positive influence on Green Banking adoption.*

## 4.3. Competitor pressure and green banking adoption

Competitive pressures have been observed to be positively related to green practice adoption (Lee et al., 2013), such as in the case of attainment of green certifications (Lin & Sheu, 2012), environmental innovation (Yalabik & Fairchild, 2011) and green supply chain management (Hoejmose et al., 2014). Research shows the banking industry to be greatly impacted by mimetic pressures and hold a high degree of imitation resulting in isomorphism (Barreto & Baden-Fuller, 2006). Research has revealed a high degree of mimetic pressures existing in the banking sector because banks must follow similar regulatory policies and face a high degree of competitive pressures (Pleasant

et al., 2014). Research shows that the competitors have high importance, threatening, influencing and cooperative ability towards Green Banking adoption (Choudhury et al., 2013). Bangladeshi banks are facing mimetic pressures from the competitive market and Green Banking guidelines due to the adoption of Green Banking by all the banks (Masud et al., 2018). When banks adopt Green Banking, the mimetic forces motivate the banks to imitate the successful adoption route of the competitors. This helps them to capture the untapped market opportunities and gain market benefits (Prajogo et al., 2012). Consequently, the following hypothesis is posited:-

*H3: Competitor pressure will have a positive influence on Green Banking adoption.*

### 4.4. Community pressure and green banking adoption

Normative isomorphism relates to a firm's willingness to respond to external pressures for greater environmental commitment, and is dependent on the extent to which a change in firm behavior results in greater levels of legitimacy (Hoejmose et al., 2014; Zhu et al., 2007). Community as stakeholders can have direct or indirect influence on firms' environment strategy. An organization's decision to adopt green management practices is impacted by the desire to improve or maintain relations with the community (Qi et al., 2011). Community pressure is stated to be a strong force which cannot be ignored by firms, because it is one of the main sources of social legitimacy. The banking industry is experiencing intense pressure from the community, who demand banks to implement green banking practices in their core internal business operations. As a result of this growing pressure, the banking industry needs to act as a champion of environmental reforms in its respective communities (Bose et al., 2017). Accordingly, it is hypothesized that:-

*H4: Community pressure will have a positive influence at Green Banking adoption.*

## 5. Conclusion

The global banking sector has started to realize its responsibility and accountability towards resource degradation and pollution generation (Kaeufer, 2010). Besides, the past few decades have also witnessed an increase in the stakeholders' pressure on banks to adopt environmentally friendly practices. As a result, a remedial and control strategy in the form of Green Banking was developed. The concept of Green Banking was developed as a paradigm shift for the banking industry ( Julia et al., 2016; Masukujjaman et al., 2016). It requires a change in the underlying ideology of the banking industry.

According to the Institutional theory changes in firms and management practices do not necessarily occur only through a rational decision-making process but also occur as a result of external influences (Bose et al., 2017).

This study attempts to contribute to Green Banking literature through the application of institutional theory in the development of a theoretical framework for Green Banking adoption. The role of stakeholder is imperative in influencing and facilitating the adoption of Green Banking and should be focused upon in order to ensure Green Banking adoption. Based on existing literature the research proposes that different stakeholder pressures can have a positive influence on Green Banking adoption. This study fills the gap in the current Green Banking research by proposing a theoretical framework for gauging the determinants of Green Banking adoption. In the presence of the conceptual significance of the current study, it is acknowledged that the study has some limitations.

## 6. Limitation and Future Research

First, the study does not empirically test the proposed model. The model can be empirically tested in the banking industry of different countries in order to identify the specific stakeholder pressures that can influence Green Banking adoption. Secondly, the study proposes a limited number of stakeholder pressures. The research model can be extended by incorporating additional stakeholder pressures based on an individual country's banking sector scenario. Lastly, the study is based on only one theoretical underpinning, i.e. the institutional theory. The theoretical insights could be expanded in further research by incorporating additional theoretical lenses theories which are relevant to this topic.

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