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Stručni članak

# **B&H MANAGERS' ATTITUDES OF GREEN BANKING, ITS IMPORTANCE, BARRIERS AND BENEFITS**

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**Abstract:** We are aware of the drawbacks of contemporary development, including climate change and global warming. To stop the harm being done to our mother earth, numerous international initiatives are currently under way. Investment in low-carbon, climate-resilient economies, such as green banking, will be encouraged. The energy crisis and the Russian-Ukrainian conflict both highlighted how quickly we must transition to green industries. This research paper examines the value and significance of "green banking" and the idea about bankers' perceptions of it by soliciting open feedback from bankers in Bosnia based on a high-quality survey questionnaire. This study is both theoretically and practically useful to the banking industry in determining the extent and importance of green banking activities for sustainable development.

**Key words:** green banking, importance of green banking, green financing, green banking barriers, green banking benefits

# STAVOVI BH. MENADŽERA O ZELENOM BANKARSTVU, NJEGOVOM ZNAČAJU, PREPREKAMA I PREDNOSTIMA

Sažetak: Svjesni smo nedostataka savremenog razvoja, uključujući klimatske promjene i globalno zagrijavanje. Kako bi se zaustavila šteta koja se nanosi našoj planeti, u toku su brojne međunarodne inicijative. Podsticat će se ulaganja u ekonomije s niskim udjelom ugljenika, otporne na klimu, kao što je zeleno bankarstvo. Energetska kriza i rusko-ukrajinski sukob naglasili su koliko brzo moramo preći na zelenu industriju. Ovaj istraživački rad istražuje vrijednost i značaj "zelenog bankarstva" i ideju o percepciji bankara o tome, tražeći otvorene povratne informacije od bankara u BiH na osnovu visokokvalitetnog anketnog upitnika. Ova studija je teoretski i praktično korisna bankarskom sektoru u određivanju obima i značaja aktivnosti zelenog bankarstva za održivi razvoj.

Ključne riječi: zeleno bankarstvo, važnost zelenog bankarstva, zeleno finansiranje, prepreke zelenog bankarstva, prednosti zelenog bankarstva

## Introduction

Since climate change carries various risks with already visible unfavorable impact on entire sectors in economy, the term is no longer being viewed just as an environmental danger. Assuming business-as-usual perspective, it is reconfirmed through IPCC report that global warming will accelerate further between 2030 and 2052, when it reaches 1.5 °C above preindustrial levels (IPCC, 2022a). Prognosis for Europe are likewise troubling, especially if global warming scales increase by 2°C in comparison to 1.5°C forecasts, with four types of risks coming to the forefront: (1) heat-induced peoples' morbidity and mortality rate, along with disturbance of ecosystem; (2) agricultural outputs losses on account of the droughts-heat combined effects; (3) sectors-wide freshwater shortages; and (4) flooding's effects on infrastructure, economies and humans (IPCC, 2022b). Everyone is affected by global warming, involving complete economic segments (Park & Kim, 2020). Accordingly, a practical approach must be taken for greening our environment from a business perspective with the final aim of

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incorporating greening initiatives from the strategic level throughout the whole corporation (Islam, 2020). As a result of industrialization characterized by enormous imbalance, environment has been greatly harmed what added up to further natural and industrial disasters (Rehman et al., 2021).

Regarding B&H, temperatures are expected to rise further (contingent on the climate scenarios range from 1 to 6 Celsius), and a few risks are anticipated: during the summer – rainfall loss is likely to be intensified, along with extreme hot and cold temperatures (GCF and UNDP, 2019). Consequently, B&H has become growingly susceptible to natural disasters, particularly massive precipitation, floods, inflammability of forests and droughts (World Bank, 2021). In comparison with other European countries, the climate change threat to B&H is particularly high because of its geographical location, limitations in adaptability, and dependence on forestry/agriculture segments for economic growth (what is especially critical for rural development, where approximately 20% of country's laborers are employed) (World Bank, 2020). Considering reasons why B&H has been unable to answer adequately to natural hazards, authors Strambo et al. (2021) addressed its institutional barriers and deficiency of financial resources.

As a result of global warming constant climbing, extreme levels of climate variability and natural disasters caused by heavy industrialization, green banking is becoming a universal response for conducting business activities in an environmentally and socially friendly manner. Banks play a vital role in financing for green economic transition by merging demand with supply and enabling private investments to a broader group of interested individuals/firms, whereas simultaneously they appraise projects (considering its economic and environmental relevance) and take into account the full variety of risks (European Banking Federation, 2017). Besides being centered on creating greener enterprises, banks itself need to make improvements in its activities' carbon footprint reduction and green products utilization.

TRAVNIK

Even though banks perform a major role in financing eco-friendly projects, green banking is still insufficiently developed, especially in emerging economies. This paper is primarily intended to explore the attitudes of managers in B&H banks about green banking meaning (definition), its barriers, benefits and current practices/activities in B&H foreign banks. In the light of core aims, the sections below are covered firstly, with the theoretical explanation of green banking definition, its scope/importance, barriers and benefits; secondly, with research outputs presentation, and thirdly, with strategic recommendations and conclusions summarization.

## **Definition of green banking**

Given that none generally endorsed "green banking" definition exist, even though it's been extensively utilized in theory/science and its' popularity grows with each day, there are plenty ways for its interpretation. In order to preserve the environment, green banks initially assess project's environmental impact and its long-term implications prior to financing it (Ahmad et al., 2013). Several researchers argue that green banking is the regular banking process that places extra importance on preserving the environment while being supervised by the equal authorities (Nath et al., 2014). Lalon (2015) emphasized that all banking types which produce benefits for the environment can be considered as green banking. According to Islam at al. (2020), banks that practice green way of doing business are in its essence perceived as

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sustainable banking, which ensures economic welfare in the long-run while protecting the environment.

Therefore, green banking depicts greening all of its business processes/activities and boosting green industries and economies by providing financial products with an ecologically benevolent focus (from green loans, mortgages, deposits, investment/common funds to electronic banking and other green service varieties). Many of standard operational green banks' activities are actually taken from other sustainable firms' practices, such as: using less paper, toners and energy; communicating and doing business with clients electronically; multiple within firm green campaigns for enhancing employees' awareness and knowledge on diverse sustainability matters. Examples of more specific green banks' activities involve green dealing with private sector clients - through offering loans for purchasing energy efficient products (for instance: house solar panels, hybrid cars, green materials for building sustainable houses) or accounts for green savings. Additionally, specific green banking includes green dealing with business or corporate sector clients by offering diverse green loans for investments (in green business buildings; sustainable manufacturing; alternative energy sources; green office furniture and infrastructure; and other green processes and eco activities) and green investment banking services (that is green brokerage services – with green bonds and stocks). Other meaningful initiatives that banks use for bettering environment comprise: budgeting funds linked to risks of climate change; activities regarding recycling; utilizing maximally natural light during the day; diminished usage of petroleum/gas; appraisal of projects risks to the environment; and investing in marketing and projects that are ecologically sound (Miah et. al, 2018).

# Scope and importance of green banking

Green Banking's scope can be described as broad but not particularly influential; it is still in its infancy. The majority of authors agree that the scope of "green banking" is divided into two parts based on the actions banks take to protect the environment. The two types of aspects or two types of environmental impacts—direct and indirect—allow for the division of these activities into two groups. The bank management should focus its attention on the indirect risks because they are actually the most significant. The use of resources by banks for operational purposes, such as energy, oil, heating, paper, toners, and others, and the waste associated with their consumption, where applicable, are the direct aspects and consequently the consequences. The various activities that banks engage in that have the potential to indirectly affect the environment are referred to as indirect impacts. This category includes things like how banks interact with their customers and the requirements they place on them in exchange for loans and other services, as well as the staff awareness, public relations, and marketing campaigns the bank runs that are related to the environment (Zhelyazkova and Kitanov, 2015.)

Environmental performance and financial performance are positively correlated, according to research by Hart and Ahuja from 1996. Initially, banks simply examined their financial performance; now, the moment has come to examine both their social and environmental performance, what requires a relevant environmental risk management process. Furthermore, to transit to sustainable operations, banks must change its financial, investment, social, dividend, and environmental protection policies, as well as develop its corporate culture. Achieving sustainable development is critical for all stakeholders in the bank, including the aforementioned workers, the government, society, clients, and doctors. According to this

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viewpoint, the fundamental components of sustainable banking are stable owners, stable customers, stable staff, and stable partners.

Green banking improves the bank's image by demonstrating and serving its environmental commitment; reduces operational costs by using less office stationery, energy, and water; increases employee productivity and efficiency through skilled and optimal use of technology; and reduces risks by installing eco-friendly equipment. It saves a lot of forestry; reduces greenhouse gas emissions by teleconferencing and organizing a transportation pool for employees; helps develop environmental consciousness by organizing an awareness program, etc.

## Barriers and benefits of green banking

Some of the benefits of Green Banking, having on mind especially global warming increased effects, are:

- 1. **Less paper waste:** Paperless banking became a need so lots of banks are computerized, digitalized or operate on a core banking solution (CBS). Thus, there is ample scope for the banks to adopt paperless or less paper for office correspondence, audit, reporting etc. (also by online and mobile banking). These banks can switch over to electronic correspondence and reporting thereby controlling deforestation.
- 2. **Raising business people's environmental awareness**: Many NGOs and environmentalists are spreading environmental awareness among the general public by organizing awareness programs and seminars, among other things. Banks can join forces by sponsoring such programs.
- 3. **Loans at Comparatively Lesser Rates:** Banks can also introduce green bank loans with financial concessions for environment friendly products and projects such as fuel-efficient vehicles, green building projects, housing and house furnishing loans to install solar energy system etc.
- 4. **Creating Jobs:** Green banks promote greater job creation and economic development by removing barriers to clean energy and energy efficiency installations and increasing demand. As demand increases, new businesses will enter the market, and existing businesses will expand their operations, resulting in increased hiring of contractors, engineers, installers, salespeople, and other related professions.
- 5. **Reward Debit and Credit Cards:** Some banks have collaborated with environmental organizations to develop reward debit and credit cards. Participating banks will make a small charitable donation to the environment as a percentage of your online banking activity.
- 6. **Environmental Standards for Lending:** Banks follow environmental standards for lending, is really a good idea and it will make business owners to change their business to environmental friendly which is good for our future generations (Meena, 2013).

In the following text are listed some of the common barriers regarding green banking implementation:

1. **Initial Expenses:** The biggest barrier to adopting clean energy technologies is the upfront cost of tackling a new project or retrofit. Projects can range from a couple hundred dollars to millions of dollars depending on the size of the project needed to satisfy the entity's demand.

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- 2. **Delay in Organization**: The time and investment required for a traditional bank to establish a new department within its business is referred to as organizational delay. To lend to the clean energy and energy efficiency markets, traditional banks would need to create a new division within their existing structure dedicated to this market segment. Hiring new employees, gathering data on market risks and processes, and determining what types of projects and at what levels they are willing to lend to are all part of the setup process.
- 3. **Information chasms:** Finally, there are several information gaps that create barriers to the adoption of clean energy and energy efficiency. Customers may not trust the technologies or the projected savings; the purchase process may be complicated; they believe it will be more difficult to sell their property.
- 4. **Risks, both real and perceived:** Investors are hesitant to provide financing for these types of investments due to market risk, both real and perceived. This uncertainty is exacerbated by the fragmented nature of the project landscape, which includes varying sizes of projects owned by various entities with varying credit requirements spread across a wide geographic range.
- 5. **Traditional financing structures are ineffective**: Classic programs (rebates, grants...) are insufficient to address the barriers to the adoption of clean energy and energy-efficient technologies.

# Research methodology and sample description

In our study, we examined managers within foreign banks situated in B&H about their perception and attitudes about green banking meaning, benefits, barriers and present practices/activities. For this purpose, we utilized a questionnaire on green banking, which items were formulated on the basis of research conducted by Zhang et al. (2022) and similar studies. We combined face-to-face with e-mail method – as ways to gather needed information on green banking. Totally, we sent questionnaires to 60 managers of different levels within foreign banks in B&H, and received back 35 filled out questionnaires (58.33% response rate).

Concerning respondents profile description, female managers dominated over male managers in the sample (67% of female managers and 33% of male managers). In respect to age categories, the most of bank managers had between 30-50 years (75% of all managers); while the other respondents had amongst 51-60 years (25%). Review of managers' educational attainment displayed that 72% had master degree diploma, whereas 28% had bachelor degree.

## Research results

In the following part are presented results by using descriptive statistics on bank managers' perception and attitudes regarding green banking meaning, benefits, barriers as well as its current practices/activities within foreign banks in B&H.

Research results from table 1. demonstrated that bank managers associate green banking mostly with environment friendly banking (mean = 4.85; SD = 0.550); what testifies that they worry about the possible effect an environment (climate change and pollution) can have on running banking operations. On the second place is ranked online banking (mean = 4.50; SD = 0.602), signifying that aiming to be green in business, banks must focus on performing, as much as possible, finance matters by using internet on various devices (like smartphones, computers or tablets), which is paperless and require no physical presence of clients. Thirdly, green banking

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is considered as socially responsible banking (mean = 4.45; SD = 0.644), by being oriented on creating greater social/ecological good through its activities (funding only projects and products which are health-friendly for people and planet). Furthermore, many bankers also agree that green banking need to be sustainable and ethical in all of its processes. Lastly, only few bankers view green banking as low-cost banking.

Table 1. Bank managers' attitudes regarding green banking meaning

| No. | Meaning of Green Banking     | Mean | SD    | Rank |
|-----|------------------------------|------|-------|------|
| 1.  | Sustainable banking          | 4.20 | 0.763 | 4    |
| 2.  | Socially responsible banking | 4.45 | 0.644 | 3    |
| 3.  | Ethical banking              | 4.00 | 0.863 | 5    |
| 4.  | Environment friendly banking | 4.85 | 0.550 | 1    |
| 5.  | Low-cost banking             | 3.60 | 0.944 | 6    |
| 6.  | Online banking               | 4.50 | 0.602 | 2    |

Source: Authors work

Table 2. illustrates the core benefits of green banking direction. Since the green banking is in its initial phase in B&H, there is no surprise that as its greatest benefits appeared: (1) compliance with sustainable economic development and green growth strategies in B&H and abroad (mean = 4.73; SD = 0.625); (2) creation of new "green" jobs (mean = 4.68; SD = 0.628) (3) environment protection (mean = 4.66; SD = 0.630); (4) reduction of resources wastage (mean = 4.50; SD = 0.668) and (5) bank reputation increasement (mean = 4.20; SD = 0.790). Other important benefits of green banking encompass: increased bank competitiveness in the long-run; profit increasement and cost reduction in the long-run. Since B&H is a developing country that still relies largely on traditional ways of doing business and is still at the very beginning when it comes to sustainable development, bank managers currently see the greatest opportunities from green banking by complying with sustainable/green growth strategies in B&H and abroad – which will allow them to get loans and subventions with more favorable conditions.

Table 2. Core benefits of green banking

| No. | Benefits of Green Banking  | Mean | SD    | Rank |
|-----|--|------|-------|------|
| 1.  | Customers attraction   | 3.47 | 1.043 | 10   |
| 2.  | Reduction of resources wastage   | 4.50 | 0.668 | 4    |
| 3.  | Bank competitiveness increasement in the long-run  | 4.00 | 0.821 | 6    |
| 4.  | Bank reputation increasement   | 4.20 | 0.790 | 5    |
| 5.  | Compliance with sustainable economic development and green growth strategies in B&H and abroad | 4.73 | 0.625 | 1    |
| 6.  | Environment protection   | 4.66 | 0.630 | 3    |
| 7.  | Accelerated service deliveries   | 3.51 | 1.088 | 9    |
| 8.  | Costs and expenses reduction in the long-run   | 3.66 | 0.964 | 8    |
| 9.  | Profit increasement in the long-run  | 3.83 | 0.852 | 7    |
| 10. | Creation of new "green" jobs   | 4.68 | 0.628 | 2    |

Source: Authors work

Table 3. displays combination of external and internal barriers for green banking in B&H. Firstly, absence of specific guidelines from the Central Bank of B&H for green banking products and services (mean = 4.67; SD = 0.641) is named as top barrier for proper green banking implementation. As the second largest barrier was selected insufficient awareness

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among clients about green banking (mean = 4.33; SD = 0.766). Thirdly, bank managers consider current technical problems (viewed through inadequate IT system) as a huge barrier for green banking enhancement. They emphasize that existing IT system is considerably slow; and need substantial upgrading in order to support growing number of innovative bank services and products. Among other meaningful internal barriers for green banking in B&H are listed: huge investment costs; lack of capable and well-trained staff in green credit appraisal; and difficulties/complexity in evaluating green projects. On the other side, managers regarded an invasion of privacy as the smallest barrier for green banking in B&H.

Table 3. Barriers for green banking in B&H

| No. | Barriers for Green Banking in B&H   | Mean | SD    | Rank |
|-----|---|------|-------|------|
| 1.  | Huge investment costs   | 4.23 | 0.771 | 4    |
| 2.  | An invasion of privacy  | 2.86 | 1.473 | 11   |
| 3.  | High risks associated with eco-friendly projects  | 3.83 | 0.861 | 9    |
| 4.  | Technical problems (inadequate IT system)   | 4.26 | 0.795 | 3    |
| 5.  | Lack of capable and well-trained staff in green credit appraisal                                    | 4.16 | 0.834 | 5    |
| 6.  | Difficulties and complexity in evaluating green projects  | 4.01 | 0.812 | 7    |
| 7.  | Absence of specific guidelines from the Central Bank of B&H for green banking products and services | 4.67 | 0.641 | 1    |
| 8.  | Lack of internal regulations for appraising and assessing of green credits                          | 3.88 | 0.875 | 8    |
| 9.  | Absence of a legal framework to support green banking proposed by the Government                    | 4.04 | 0.803 | 6    |
| 10. | Low demand for green loans  | 3.78 | 0.923 | 10   |
| 11. | Insufficient awareness among clients about green banking  | 4.33 | 0.766 | 2    |

Source: Authors work

Current green banking practices are illustrated on the table 4. Ranked first was internet/mobile banking (mean = 4.87; SD = 0.440)— as progressively present bank practice that encourage implementing paperless banking. Secondly ranked was providing more favorable conditions for green investments or green projects (such as: lower interest rates; or refund of part of the loan principal) (mean = 4.17; SD = 0.881). On the third place was ranked trainings/educations for management on green or sustainable banking (mean = 4.11; SD = 0.867), as the green banking practice. Among other green banking practices that were highly ranked were: implemented environmentally friendly measures to save energy and water at the bank level; and training/education for employees on green or sustainable banking.

Table 4. Current green banking activities and practices

| No. | Current green banking activities/practices  | Mean | SD    | Rank |
|-----|---|------|-------|------|
| 1.  | Internet and mobile banking   | 4.87 | 0.440 | 1    |
| 2.  | Providing loans for projects involved in energy efficiency and/or green/clean technologies                  | 3.56 | 1.013 | 7    |
| 3.  | Providing more favorable conditions for green investments or green projects (such as: lower interest rates) | 4.17 | 0.881 | 2    |
| 4.  | Trainings/educations for management on green or sustainable banking   | 4.11 | 0.867 | 3    |
| 5.  | Training/education for employees on green or sustainable banking  | 4.02 | 0.914 | 5    |

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| Improving internal work policies (which are more socially responsible) |      | 1.022 | 6 |
|--|------|-------|---|
| Providing training programs for clients                                |      | 1.513 | 9 |
| Reduction of harmful emissions through various activities              | 3.44 | 1.035 | 8 |

4.04

0.908

4

save energy and water at the bank level Source: Authors work

6.

7.

8.

9.

Given that green banking is still in infant stage in B&H, existing green practices signify that it is developing in the right direction. However, the huge investments shall be made for bringing this topic much closer to current and potential clients across the country.

We have implemented environmentally friendly measures to

## **Conclusions and recommendations**

With global warming continuing to climb, climate variability/extreme temperatures at its highest level, and natural disasters resulting from heavy industrialization, green banking is becoming universally accepted as a way to conduct business in an environmentally and socially responsible manner. Through blending demand and supply for green solutions, green banking contribute significantly to the financing of a green economic transition, thereby enabling green private investment to a wide range of interested individuals/firms. At the same time, they assess sustainable projects (from a financial and environmental perspective) and take into account a wide variety of risks. Green banking was observed through this research as greening all of its business processes/activities and boosting green industries and economies by providing financial products with an ecologically benevolent focus (from green loans, mortgages, deposits, investment/common funds to electronic banking and other green service varieties). The prime intention of this paper was to explore the attitudes of managers in B&H banks about green banking meaning (definition), its barriers, benefits and current practices/activities in B&H foreign banks. In terms of bank managers' attitudes regarding green banking meaning. we uncovered that the three top associations with green banking were: (1) environment friendly banking; (2) online banking; and (3) socially responsible banking. Concerning core benefits of green banking, majority of bank managers listed the next benefits as the top three: (1) compliance with sustainable economic development and green growth strategies in B&H and abroad; (2) creation of new "green" jobs; and (3) environment protection. Other highly important benefits involve: reduction of resources wastage and increased bank reputation and competition in the long-run. In relation to the top barriers for green banking implementation in B&H, bank managers put the greatest accent on: (1) absence of specific guidelines from the Central Bank of B&H for green banking products and services; (2) insufficient awareness among clients about green banking; and (3) technical problems (inadequate IT system); (4) huge investment costs; and (5) lack of capable and well-trained staff in green credit appraisal. Besides present barriers for green banking in B&H, bank managers have confirmed that many of green banking activities and practices have already become common integral part of standard bank operations, such as: internet and mobile banking; providing more favorable conditions for green investments or green projects (such as: lower interest rates); trainings/educations for management on green or sustainable banking; and implementation of environmentally friendly measures to save energy and water at the bank level.

Recommendations for banks are to make joint efforts to influence the adoption of new internal procedures, laws and upgrading the existing ones on sustainable/green banking, in order to start

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offering new green financial products to a greater extent. Since one of the greatest barriers for green banking implementation in B&H is too small awareness among clients about green banking, projects of green investing and green financial products shall be conducted together with NGO-s, government, firms and schools in order to increase awareness of people and prepare them for going green in their ordinary life and business activities. Other recommendations, when awareness of green banking broaden across the country, is for banks to introduce new green financial products/services, such as: creating green deposits booked for investing sustainable by banks; providing for clients next-level green credit cards with loyalty/rewards schemes, by which they will in accordance with their green payment transactions get reward points that can be used to reduce their carbon footprint and support environmentally friendly projects worldwide. Additionally, by lowering entry barriers to ESG ("environmental, social and government") investing and making it more accessible to everyone, numerous of new customers could become involved in green financial markets, generating hundreds of million dollars in future period.

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25. INTERNATIONAL CONFERENCE

"THE ENERGY CRISIS AS A KEY CHALLENGE FOR THE ECONOMIES, LAWS AND MEDIA FREEDOM OF THE WESTERN BALKAN COUNTRIES WITH SPECIAL REFERENCE TO BOSNIA AND HERZEGOVINA"

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