National Research Journal of Banking and Finance Management
Volume No: 12, Issue No: 1, Year: 2025 (January-June)
PP: 15-24
ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

BEHAVIORAL AND INSTITUTIONAL BARRIERS TO NET ZERO ADOPTION IN BANKING: A SYSTEMATIC REVIEW

Rajasekharan K.

Research Scholar, Department of Business and Management, Desh Bhagat University, Mandi Gobindgarh , Punjab.

Arshdeep Singh, Tripti Sharma

Assistant Professor, Department of Business and Management, Desh Bhagat University, Mandi Gobindgarh , Punjab.

ABSTRACT

The global financial sector plays a crucial role in driving the transition to a net-zero economy. However, banks and financial institutions face significant behavioral and institutional barriers that hinder the effective adoption of net-zero commitments. This systematic review aims to identify and analyze these barriers through a structured examination of academic literature, policy reports, and case studies. The review categorizes barriers into cognitive biases, organizational inertia, regulatory challenges, and stakeholder pressures. The findings highlight the need for targeted interventions to overcome these barriers, thereby accelerating the banking sector's transition toward sustainable finance.

Keywords: [Net Zero Banking, Institutional Barriers, Behavioral Barriers, Sustainable Finance, Climate Change, Financial Institutions]

1. INTRODUCTION

The financial sector is increasingly recognized as a key player in the global transition to a net-zero economy. Banks, in particular, are responsible for directing capital flows toward sustainable investments. Despite growing commitments from financial institutions, the pace of transition remains slow due to various barriers. The Paris Agreement (2015) set a global target to limit warming to 1.5°C, necessitating rapid decarbonization across industries. Banks, as key financial intermediaries, must align lending and investment portfolios with net-zero emissions by 2050. However, despite growing commitments (e.g., Net-Zero Banking Alliance), progress remains slow due to behavioral and institutional constraints.

This systematic review aims to:

i. Systematically identify behavioral and institutional barriers to net-zero adoption in banking.

ii. Analyze their underlying causes and interactions.

iii. Propose evidence-based solutions to overcome these barriers.

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

2. METHODOLOGY

A systematic review methodology was employed, following PRISMA guidelines. The study incorporated peer-reviewed journal articles, industry reports, and policy documents published over the last two decades.

3. THEORETICAL FRAMEWORK

The study of behavioral and institutional barriers to net-zero adoption in banking draws on multiple theoretical perspectives to understand the resistance and challenges in transitioning toward sustainable finance. This framework integrates behavioral economics, institutional theory, and stakeholder theory to analyze the interplay between individual decision-making, organizational structures, and external regulatory pressures in the banking sector.

3.1. Institutional Theory

Institutional theory explains how regulatory, normative, and cognitive structures shape organizational behaviors. Banks operate within an institutional framework where regulatory pressures, industry norms, and stakeholder expectations influence their net-zero adoption strategies. Institutional isomorphism, including coercive (regulatory compliance), normative (professional standards), and mimetic (peer influence) mechanisms, plays a critical role in shaping banking practices.

3.2. Behavioral Economics and Prospect Theory

Behavioral economics provides insights into why banks may resist net-zero commitments. Prospect theory suggests that decision-makers in banks tend to overweight potential losses associated with green investments while underestimating long-term gains. Cognitive biases such as loss aversion, status quo bias, and present bias contribute to slow adoption.

3.3. Stakeholder Theory

Stakeholder theory posits that organizations must balance the interests of various stakeholders, including investors, regulators, customers, and environmental groups. Banks face conflicts between shareholder expectations for short-term returns and broader societal demands for sustainable finance. Understanding these tensions helps explain barriers to net-zero adoption.

3.4. Organizational Change and Inertia

Organizational change theories highlight the challenges institutions face when implementing structural transformations. Banks, as large bureaucratic entities, often experience inertia due to entrenched corporate cultures, rigid hierarchies, and risk aversion. Change management frameworks suggest that overcoming these barriers requires strong leadership, strategic vision, and incremental implementation strategies.

4. BEHAVIORAL BARRIERS TO NET ZERO ADOPTION

The transition to net-zero in banking requires significant behavioral shifts from institutions, employees, and customers. While technological and regulatory challenges are well-

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

documented, behavioral barriers often slow down or obstruct adoption. Here are some key behavioral barriers to net-zero adoption in banking:

Table 1.1: Behavioral Barriers to Net Zero Adoption in Banking

S. No.	Behavioral Barrier	Brief Description	Relative Impact (1–5)*
1	Status Quo Bias	Preference for familiar business models	4
2	Short-Termism	Focus on quarterly profits over long-term sustainability	5
3	Perceived High Costs	Belief that green financing is expensive or risky	4
4	Lack of Awareness	Limited understanding of ESG and net-zero	3
5	Incentive Misalignment	Rewards not linked to sustainability goals	4
6	Greenwashing Concerns	Skepticism due to superficial efforts	3
7	Resistance to Change	Institutional inertia against new strategies	4
8	Customer Behavioral Inertia	Customers prefer conventional banking	3
9	Regulatory Uncertainty	Ambiguity in net-zero regulations	4
10	Lack of Collaboration	Minimal coordination between banks	3

*Relative Impact is a qualitative assessment for visualization purposes.

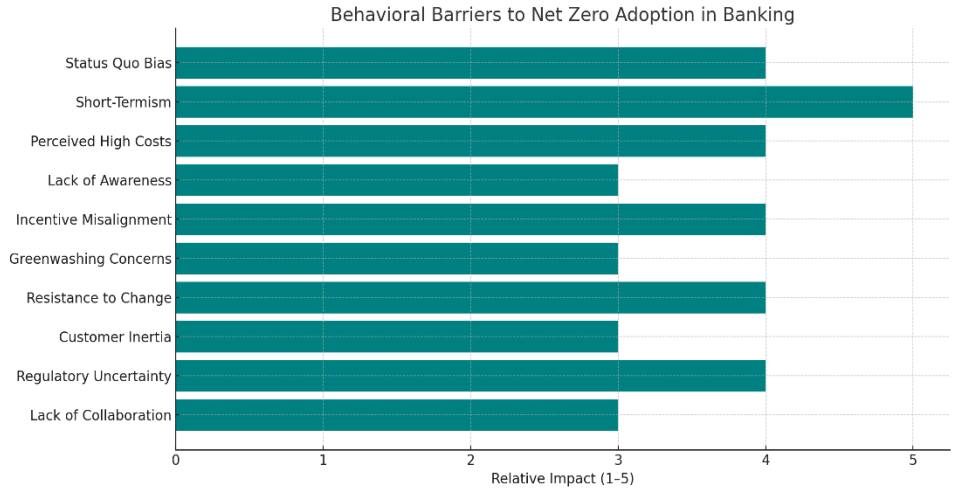

Figure:1.1 Behavioral barriers to net zero adoption in the banking sector.

Interpretation:

Table 1.1 and Figure 1.1 identifies the key behavioral barriers that impede net zero adoption in the banking sector**.** The most pressing issue, with a relative impact of 5, is short-termism,

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

where banks prioritize quarterly profits over long-term sustainability objectives. Closely following are several barriers with a relative impact of 4, including status quo bias, reflecting a preference for familiar and established business models; perceived high costs, where green financing is seen as costly or financially risky; incentive misalignment, where employee rewards and institutional priorities are not aligned with sustainability targets; resistance to change, where internal inertia hinders the adoption of new, climate-conscious strategies; and regulatory uncertainty, with ambiguity surrounding net-zero policies creating hesitation among decision-makers. Other barriers, with a moderate relative impact of 3, include lack of awareness of ESG principles and net-zero frameworks, greenwashing concerns stemming from skepticism towards superficial sustainability efforts, customer behavioral inertia as clients continue to favor conventional banking services, and a lack of collaboration between financial institutions, limiting coordinated progress toward shared climate goals.

4.1. Status Quo Bias

Banks and financial institutions tend to stick with familiar business models and risk assessment frameworks. Moving towards sustainable finance requires reevaluating lending, investment, and risk policies, which can be met with resistance due to comfort with existing systems.

4.2. Short-Termism

Financial institutions often prioritize short-term profitability over long-term sustainability. Executives and investors may focus on quarterly earnings rather than long-term climate risk and sustainability goals, leading to reluctance in making net-zero commitments.

4.3. Perceived High Costs and Uncertain Returns

There is a common perception that transitioning to net-zero financing and sustainable investments is expensive and offers uncertain returns. Banks may hesitate to finance green projects due to concerns over profitability, payback periods, and regulatory uncertainties.

4.4. Lack of Awareness and Understanding

Many banking professionals and customers have limited knowledge of sustainable finance, ESG (Environmental, Social, and Governance) principles, and the impact of climate risks. Without clear education and engagement, stakeholders may not see the necessity or benefits of net-zero commitments.

4.5. Incentive Misalignment

Employees and executives are often rewarded based on traditional performance metrics, such as revenue growth and profit margins. If sustainability goals are not integrated into compensation structures, there is little motivation to drive net-zero initiatives.

4.6. Greenwashing Concerns

Some banks engage in superficial sustainability efforts (greenwashing) rather than implementing real, impactful changes. This can create skepticism among stakeholders and customers, leading to a lack of trust and engagement in genuine net-zero initiatives.

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

4.7. Resistance to Change

Organizational inertia and internal resistance can slow down transformation efforts. Employees and leadership may be reluctant to adopt new policies, technologies, or investment strategies that require significant shifts in mindset and operations.

4.8. Customer Demand and Behavioral Inertia

While there is growing interest in green banking, many customers still prioritize convenience, rates, and financial returns over sustainability. A lack of strong customer demand for green financial products may discourage banks from prioritizing net-zero initiatives.

4.9. Regulatory Uncertainty

Unclear or inconsistent regulatory frameworks can lead to hesitation in adopting net-zero strategies. If banks perceive regulations as uncertain or subject to change, they may delay investment in sustainable initiatives.

4.10. Lack of Collaboration

Achieving net-zero requires industry-wide collaboration. However, competitive pressures and a lack of shared standards may discourage banks from working together to drive meaningful change.

5. INSTITUTIONAL BARRIERS TO NET-ZERO ADOPTION

Institutional barriers to net-zero adoption in banking refer to structural, regulatory, and organizational challenges that prevent or slow down the transition to net-zero emissions. These barriers exist at multiple levels, including governance, financial incentives, risk assessment frameworks, and industry-wide standards.

Table 1.2: Institutional Barriers to Net Zero Adoption

S. No.	Institutional Barrier	Brief Description	Relative Impact (1–5)*
1	Regulatory & Policy Constraints	Lack of standard global guidelines and unclear fiduciary duties	5
2	Risk Assessment Models	Traditional metrics neglect long-term climate risks	4
3	Market Pressures	Short-term financial performance takes precedence	4
4	Internal Organizational Issues	Lack of expertise, siloed operations, and change resistance	4
5	Client & Portfolio Challenges	High transition costs for clients and stranded asset risks	3
6	Technological Gaps	Underdeveloped carbon markets and insufficient fintech integration	3

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

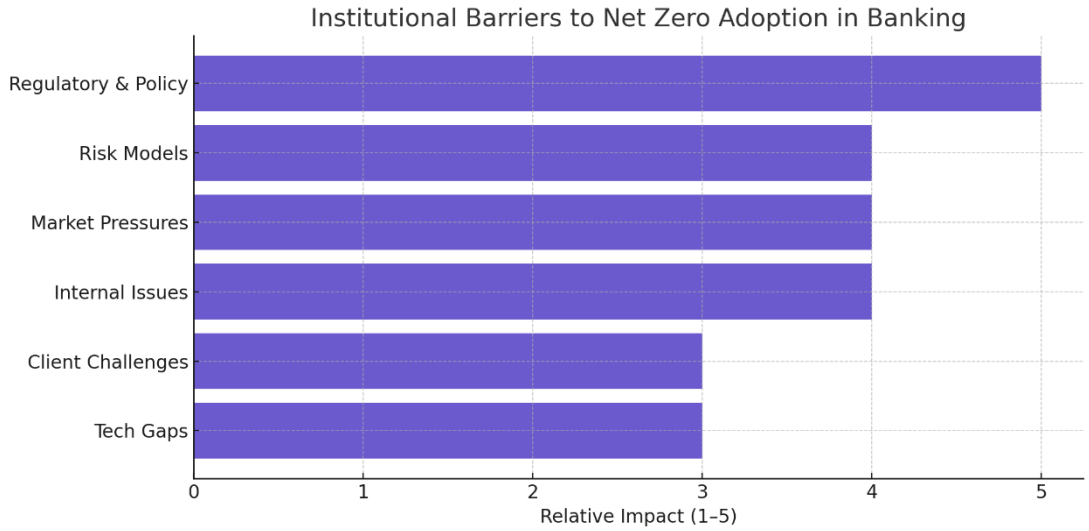

Figure: 1.2 Institutional barriers to net zero adoption in Banking

Interpretation:

Table 1.2 and Figure 1.2 outlines the key institutional barriers hindering the **adoption of net zero strategies.** The most significant barrier, with a relative impact of 5, is **regulatory and policy constraints**, driven by the absence of standardized global guidelines and ambiguous fiduciary responsibilities, which leave institutions uncertain about their climate-related obligations. **Risk assessment models** follow with a relative impact of 4, as traditional financial metrics often fail to capture the long-term risks associated with climate change. Similarly rated are **market pressures**, where the dominance of short-term financial performance metrics overshadows sustainability goals. **Internal organizational issues** also carry a relative impact of 4, stemming from a lack of specialized expertise, siloed operational structures, and internal resistance to change. **Client and portfolio challenges**, with a relative impact of 3, reflect the high costs associated with transition for clients and the risks posed by stranded assets. Lastly, **technological gaps**, also rated at 3, highlight the limitations of underdeveloped carbon markets and the insufficient integration of financial technology solutions needed to support net zero initiatives.

5.1. Regulatory and Policy Constraints

Lack of Standardized Regulations: There is no globally consistent framework for net-zero commitments, making it difficult for banks to develop unified strategies.

Capital Requirements: Existing financial regulations (e.g., Basel III) require banks to hold capital reserves that may discourage investments in low-carbon projects.

Fiduciary Duty Ambiguity: Some regulators and institutions interpret fiduciary duties as prioritizing short-term returns, making long-term climate investments less attractive.

5.2. Risk Assessment and Financial Models

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

Traditional Risk Metrics: Conventional risk assessment frameworks often undervalue climate risks and overemphasize short-term financial performance.

Lack of Climate-Related Data: Inconsistent or incomplete climate-related financial disclosures hinder effective risk analysis.

Credit and Lending Criteria: Legacy credit models may classify green investments as high-risk due to limited historical data.

5.3. Market and Competitive Pressures

Short-Term Profitability Focus: Many banks prioritize short-term shareholder returns over long-term sustainability goals.

Competition and First-Mover Disadvantage: Banks may fear losing clients if competitors continue financing fossil-fuel-intensive industries.

Greenwashing Risks: Pressure to show sustainability efforts without clear frameworks can lead to misleading ESG (Environmental, Social, and Governance) claims.

5.4. Internal Organizational Challenges

Lack of Expertise and Training: Many banking professionals lack the necessary knowledge to integrate climate considerations into financial decision-making.

Siloed Decision-Making: Sustainability teams often work separately from core business units, limiting their influence on strategic decisions.

Inertia and Resistance to Change: Large institutions may struggle with bureaucratic inertia that slows down innovation and adaptation.

5.5. Client and Portfolio Challenges

High Transition Costs for Clients: Many industries reliant on bank financing face significant costs to transition to net-zero, affecting their ability to repay loans.

Stranded Asset Risks: Banks with high exposure to fossil fuels face risks from devalued assets as the economy shifts toward green energy.

Engagement vs. Divestment Dilemma: Banks must balance between engaging with high-emission clients to help them transition and divesting to reduce their own carbon footprint.

5.6. Technological and Infrastructure Barriers

Lack of Green Investment Opportunities: In some regions, the pipeline of bankable green projects is limited.

Underdeveloped Carbon Markets: Unstable or underdeveloped carbon pricing mechanisms create uncertainty for banks trying to integrate carbon costs into lending decisions.

Slow Adoption of Climate-Focused Financial Technologies: Limited use of AI and blockchain for tracking emissions and green financing adds to inefficiencies.

6. STRATEGIES TO OVERCOME BARRIERS

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

Achieving net zero in the banking sector is a complex but critical goal. Banks face multiple barriers, including regulatory challenges, data transparency issues, and resistance from stakeholders.

6.1. **Strengthening Regulatory and Policy Alignment**

- Advocate for clear and consistent regulations that support sustainable finance.
- Engage in public-private partnerships to develop industry-wide net zero frameworks.
- Align banking policies with international agreements like the Paris Agreement and Task Force on Climate-related Financial Disclosures (TCFD).

6.2. **Enhancing Data Transparency & Reporting**

- Implement standardized ESG metrics and reporting systems to track carbon emissions across portfolios.
- Leverage AI and blockchain to improve data accuracy and transparency in climate risk reporting.
- Require borrowers and investees to disclose their carbon footprints as part of lending criteria.

6.3. Embedding Climate Risk into Decision-Making

- Integrate climate stress testing and scenario analysis into risk management models.
- Develop green risk-weighting factors that incentivize sustainable investments.
- Encourage clients to adopt transition plans by linking lending rates to sustainability performance.

6.4. Scaling Up Sustainable Finance & Green Products

- Expand green bonds, sustainability-linked loans, and carbon offset financing.
- Develop innovative financing structures, such as blended finance, to de-risk sustainable investments.
- Offer preferential rates for businesses and projects aligned with net zero goals.

6.5. Driving Cultural and Organizational Change

- Foster a sustainability-driven culture within the bank through executive leadership and incentives.
- Train employees in climate finance, ESG risk assessment, and sustainable investment strategies.
- Align executive compensation with net zero performance metrics.

6.6. Engaging Stakeholders and Clients

- Work with corporate clients to develop sector-specific transition plans for net zero.

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

- Educate retail clients about green banking options like sustainable investments and carbon-neutral accounts.
- Collaborate with industry peers and policymakers to share best practices and drive systemic change.

6.7. Leveraging Technology for Green Innovation

- Use AI and big data to analyze ESG risks and track decarbonization progress.
- Invest in fintech solutions that promote sustainable investments and carbon tracking for customers.
- Deploy digital tools to help clients assess their carbon footprints and transition strategies.

7. CONCLUSION

This systematic review demonstrates that net zero adoption in banking offer significant benefits for both employees and organizations. The transition to net-zero in the banking sector is hindered by a combination of behavioral and institutional barriers that slow down meaningful action. Behavioral barriers, such as cognitive biases, risk aversion, and short-termism, limit decision-makers' willingness to integrate sustainability into financial strategies. Institutional barriers, including regulatory inconsistencies, lack of standardized reporting frameworks, and entrenched corporate cultures, further impede progress. Addressing these challenges requires a multi-faceted approach. Banks must foster a sustainability-driven mindset by embedding climate considerations into leadership training, risk assessment models, and incentive structures. Regulatory bodies should enhance policy coordination and establish clearer, enforceable guidelines to standardize sustainability reporting. Collaboration between financial institutions, governments, and non-financial sectors is also essential to create a robust ecosystem for net-zero adoption.

Future research should explore the effectiveness of behavioral interventions, such as nudges and incentives, in overcoming psychological barriers. Additionally, further studies on policy harmonization and institutional redesign can provide actionable insights for accelerating the banking sector's decarbonization. By addressing these barriers proactively, banks can play a pivotal role in financing a sustainable future and achieving global climate goals.

REFERENCES

1. Musyaffi, A. M., Santika, A. Z., Zairin, G. M., Johari, R. J., Rosnidah, I., & Mentari, M. (2023). Overcoming Barriers to Green Banking Adoption: Insights from Innovation Resistance Theory. *International Journal of Sustainable Development and Planning*, 18(11), 3539–3548. https://doi.org/10.18280/ijsdp.181118.
2. Ghosh, S., Datta, S., & Verma, R. (2024). Decarbonization of Indian Banking: Challenges & Pathways Forward. *International Journal of Banking, Finance, and Insurance Technology*, 2(1), 85–95.
3. Bouteraa, M., Raja Hisham, R. R. I., & Zainol, Z. (2023). Challenges Affecting Bank Consumers' Intention to Adopt Green Banking Technology in the UAE: A UTAUT-

ISSN No: 2349-6762
Peer Reviewed & Refereed Journal (IF: 7.56)
Journal Website www.nrjbfm.in

Based Mixed-Methods Approach. *Journal of Islamic Marketing*, 14(10), 2466–2501. https://doi.org/10.1108/JIMA-02-2022-0039.

4. Bukhari, S. A. A., Hashim, F., & Amran, A. (2020). Green Banking: A Road Map for Adoption. *International Journal of Ethics and Systems*, 36(3), 371–385. https://doi.org/10.1108/IJOES-11-2019-0177
5. Tiwari, G., Sharma, N. D., & Roy, A. S. (2023). Systematic Literature Review on Implementation of Environmentally Sustainable Banking: Motivation, Benefits, and Challenges. *The Indonesian Journal of Accounting Research*, 26(1), 1–20. https://ijar-iaikapd.or.id/index.php/ijar/article/view/739
6. Gasparini, M., et al. (2024). Model-Based Financial Regulation Challenges for the Net-Zero Transition. *Nature Climate Change*, 14, 1–9. https://doi.org/ 10.1038/s41558 -024-01959-7