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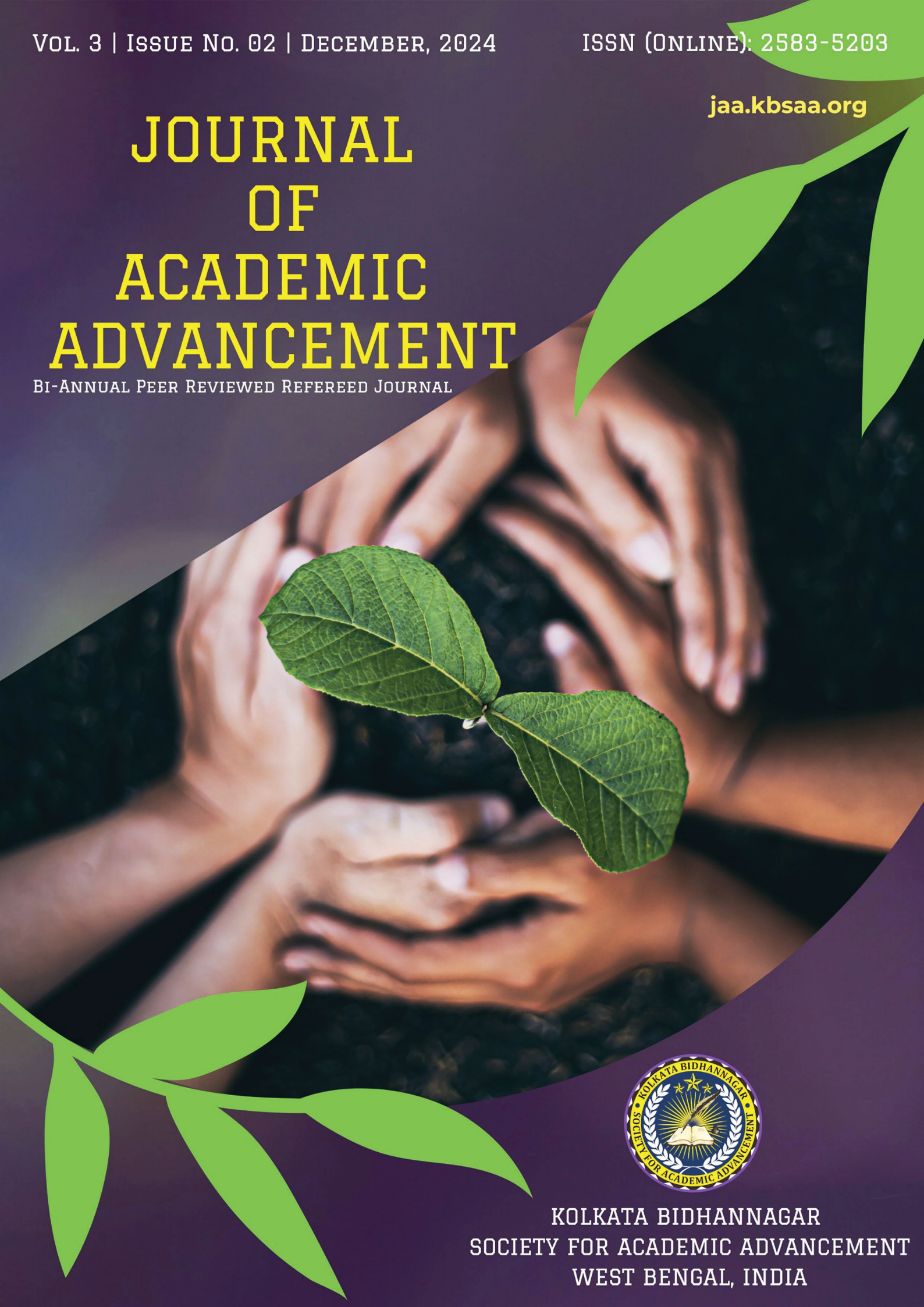

KOLKATA BIDHANNAGAR
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EDITORIAL

We feel honoured and privileged to present the Bi-Annual Peer Reviewed Refereed Journal, ISSN (Online): 2583-5203, Volume 3, No. 02, December, 2024 among our esteemed readers and academic fraternity.

This Journal is the outcome of the contributions of insightful research-oriented papers/articles by various eminent academicians, and research scholars in a highly organized and lucid manner with a clear and detailed analysis related to the emerging areas in the fields of Social Sciences and Allied Areas.

The views expressed in the research-oriented papers/articles solely belong to the paper contributor(s). Neither the Publisher nor the Editor(s) in any way can be held responsible for any comments, views and opinions expressed by **paper contributors.** While editing, we put in a reasonable effort to ensure that no infringement of any intellectual property right is tolerated.

We also express our sincere thanks and gratitude to all the contributors to research papers/ articles who have taken pain in preparing manuscripts, incorporating reviewer(s) valuable suggestions and cooperating with us in every possible way.

We also express our heartfelt gratitude to all the esteemed members of the Editorial Board, Esteemed Reviewer(s) who despite their busy schedules have given their valuable time, suggestions and comments to enrich the quality of the contributory resears paper(s) in bringing to light this December issue.

Last, but not least, we revere the patronage and moral support extended by our parents and family members whose constant encouragement and cooperation made it possible for us to complete on time.

We would highly appreciate and look forward to your valuable suggestions, comments and feedback at **editorbr2022@gmail.com**

December 31, 2024
West Bengal, India

PEMA LAMA
Editor-in-Chief

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RESEARCH ARTICLE

A Study on Green Banking Services of Commercial Banks and Customer Awareness in West Bengal

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ABSTRACT

The possible loss of vegetation due to a substantial increase in air pollutants may go unnoticed as we confront the challenges of globalisation in the twenty-first century. This could give rise to the idea of 'green banking,' which might be crucial for incorporating developments in technology, improving operational efficiency, and altering customer behaviour in the banking industry. It might also be applied as a means of promoting environmentally conscious conduct and lowering the carbon footprints associated with financial activity. While banking activities don't directly impact the environment, they have a significant impact on customers. For this reason, banks need to advocate for environmentally friendly products, procedures, and technology in order to significantly lower their carbon footprint. One example of the same is the launch of environmentally friendly goods and services, like online, mobile, ATM, and credit card banking. Banks that use paperless banking practices can reduce their carbon footprints. Based on research of over 20 literature, the current study aims to enumerate the advantages of green banking and may assess customer knowledge, familiarity, awareness, and potential problems connected with such implementation.

1. INTRODUCTION

Green banking is a concept which is of recent origin and it promotes terrain-friendly banking practices and reduces carbon footmarks from banking conditioning. In recent times sustainable development and preservation of terrain are recognized encyclopedically and for this main focus is on reducing the demand for fossil energies by enforcing the Three R's viz, Reduce, Exercise and Reclaim. Green banking practices involve environmental protection and the preservation of natural resources. It is sometimes referred to as sustainable banking or ethical banking. Due to the worrisome population growth rate, which encourages the use of various paper-based communication methods, there is a significant amount of paper consumption. Both society and the environment are harmed by this. Trees are being cut down to make paper, which affects the climate, floods, droughts, and other natural disasters. All of these impede the economy's ability to grow sustainably. Banks must adjust their mentality in this situation to overcome these difficulties and go paperless

2. LITERATURE REVIEW

H.M.A.K. & H.M.S.P (2019) in their study wanted to address the problem of the impact of green banking enterprise on overall green client satisfaction, the main idea of this study is to introduce an abstract model which sufficiently explains overall client satisfaction on green banking with possible predictor variables. Available literature suggests that there's a massive trend among all service providers including bankers in espousing paperless technologies while guarding terrain

for unborn generations. *Bouteraa (2020)* revealed that Green banking services Involve important stakeholders, and increase mindfulness and information on environmental issues. Direct and useful assistance, such as green finance guidelines and subventions, subventions and loans at blinked rates. Policymakers and decision-makers ought to create authentication roadmaps and monitor the process. Green financing should be introduced by marketing departments. *Dhamija & Sahni (2021)* infer that E-banking services need to be knitter made according to age, gender, occupation etc. Guests are concerned with the security of finances via e-banking. E-banking training and forums need to be conducted by banks for better operation. Training to the workers is inversely important to guide their guests. Need to make better structure by better investment plans from the Government for rearmost technology. *Sarma (2022)* found that a bank's non-performing assets (NPA), age, size, and return on assets (ROA) all have a favourable effect on how well it does in green banking, according to research. Nonetheless, a board's size and proportion of female directors are inversely related to the success of green banking. According to the report, all banks have continuously outperformed industry averages in green banking over the past ten years, with notable peaks in 2012-2013 and 2016-2017. *Shivakumar (2023)* in his study infers that customers rate green banking procedures as satisfactory (4.11/5), and they also think that they support sustainable development. should encourage openness and obtain high Green currency ratings from regulatory agencies, the study advises banks should fund ecologically conscious industries first, evaluate green banking offerings regularly, and release yearly reports.

3. RESEARCH GAP

It is clear from the aforementioned analysis of the literature that several research has been carried out in the field of green banking from an international viewpoint on different factors. Only a few studies with a national focus have been conducted in India by various organizations and research institutions. However, no research on green banking has yet been done in West Bengal. As a result, considering the aforementioned research gap, this study focuses on the level and dimensions of consumer awareness in West Bengal's urban and rural areas.

4. OBJECTIVES OF THE STUDY

The objectives of the study are as follows –

- To analyse the perception of customer knowledge of green banking services of the users.
- To interpret the level of effectiveness, affordability and quality of green banking services.
- To determine the level of customer use and the factors affecting the use of commercial banks' green banking services.

5. RESEARCH METHODOLOGY

The present study is descriptive and empirical in nature. Primary and Secondary Data have been considered for the study. The sample size of the study consists of 60 respondents. A structured questionnaire is being developed for the collection of data. Data Analysis is being done by using the Chi-square Test and KMO and Bartlett's Test. The period of this study is from September, 2023 to March, 2024. This is the period when the whole research was conducted.

6. RESEARCH HYPOTHESIS

The following research hypotheses are formulated -

$\mathbf{H_{01}}$: Customer awareness about the green banking services of commercial banks varies across the type of ownership and location of banks.

$\mathbf{H_{02}}$: The perceived quality, efficiency and cost of the green banking services of the commercial bank are different across the type of ownership and the location of banks.

7. DATA ANALYSIS

Reliability Analysis

In banking services, customer awareness is crucial and is the key to success. A comprehensive questionnaire designed to investigate commercial banks' customers' understanding of green banking practices has been

developed. Cronbach's Alpha has been used to assess the questionnaire's reliability.

TABLE 1: RELIABILITY ANALYSIS

Cronbach's Alpha	No. of Items
0.829	21

Source: Author's self-calculation

The table above illustrates the degree of normality and reliability of the data and questionnaire according to Cronbach's Alpha Test reliability, which is 0.829, indicating that the data is sufficient and reliable.

Part 1: Demographic Profile of the Respondents

From the below-mentioned table, we can infer that 31 respondents are male and 29 respondents are female. Hence male category forms the majority.

TABLE 2: GENDER DISTRIBUTION

Sl. No.	Gender	No. of Respondents	Percentage
1	Male	31	52%
2	Female	29	48%
	Total	60	100%

Source: Calculated from Primary data

TABLE 3: AGE DISTRIBUTION

Sl. No.	Age Group (In Years)	No. of Respondents	Percentage
1	18-28	49	82%
2	29-39	6	10%
3	40-50	3	5%
4	51-61	1	1.5%
5	Above 61	1	1.5%
	Total	60	100

Source: Calculated from Primary data

One significant demographic factor that influences customer awareness of green banking activities is age. From the table, as well as the graph below we can say that most of the responses are between the ages of 18 and 28.

TABLE 4: OCCUPATIONAL DISTRIBUTION

Sl. No.	Occupation of the Respondents	No. of Respondents	Percentage
1	Student	39	65%
2	Teacher/Research Scholar	2	3%
3	Engineer	8	14%
4	Service	2	3%
5	Corporate Employee	5	8%
6	Others	4	7%
	Total	60	100%

Source: Calculated from Primary data

From the chart below we can summarize that 39(65%) respondents are students, followed by 8(14%) responses from engineers, and 5(8%) responses from corporate employees. There are 2 responses from Teachers, 2 responses from service sector employees and 4 responses from other categories. Hence, we can summarize that the students' respondents are maximum in this case.

TABLE 5: EDUCATIONAL QUALIFICATION

Sl. No.	Educational Qualification of the Respondents	No. of Respondents	Percentage
1	12th Pass	5	8%
2	Graduate	30	50%
3	Post Graduate	22	36%
4	*Ph.D*	*1*	*2%*
5	*Professional Course*	*1*	*2%*
6	*Others*	*1*	*2%*
	Total	*60*	*100%*

Source: Calculated from Primary data

Out of 60 respondents, 30 (50%) are graduates, 22(36%) are postgraduates, 5(8%) are 12th pass, and 1 respondent each from Ph.D, Professional Courses and others. Based on education, the majority of respondents are mainly Graduates.

TABLE 6: MONTHLY INCOME

Sl. No.	Monthly Income of the Respondents	No. of Respondents	Percentage
1	Not Earning	38	63%
2	10000-100000	9	15%
3	100001-200000	1	2%
4	200001-300000	3	5%
5	300001-400000	3	5%
6	Above 400000	6	10%
	Total	60	100%

Source: Calculated from Primary data

After studying the sample of 60 respondents, a majority of the 38(63%)respondents are not earning any income because they are students and do not have any sources of income. 9(15%) respondents fall under the income category of '10000 - 100000', followed by 6(10%) respondents from the income level of 'Above 400000'. 1 respondent falls under the income level of '100001 - 200000'. 3 respondents each fall under the income level of '200001 - 300000' and '300001 - 400000' respectively.

Respondents' Bank-wise Distribution

TABLE 7: TOTAL NO. OF BANKS IN THE SAMPLE

Name of the Banks	Total Count
Axis Bank	7
Bank of Baroda	1
Bank of India	2
Canara bank	2
Central bank of India	1
HDFC	3
ICICI	3
IOB	2
Indian Bank	2
Kotak Mahindra	1
PNB	12
SBI	22
UCO Bank	2

Source: Calculated from Primary data

TABLE 8: BANKS' ENCOURAGEMENT TOWARDS PROMOTING GREEN BANKING SERVICES

Sl. No.	No. of Respondents
Yes	55
No	5

Source: Calculated from Primary data

We can infer that 55 respondents have stated their banks promote green banking services. A small part of 5 respondents have said their bank does not promote green banking services.

TABLE 9: EXTENT OF BANKS' ENCOURAGEMENT TOWARDS PROMOTING GREEN BANKING SERVICES

Sl. No.	No. of Respondents
Moderate Extent	27
Large Extent	19

Source: Calculated from Primary data

On the basis of the previous table, respondents who have claimed that their bank promotes green banking services have also stated the extent to which their bank encourages green banking services. 27 respondents have said their banks promote green banking services to a moderate extent, whereas, 19 respondents claim that their bank encourages green banking to a large extent. Hence, we can infer that banks' encouragement toward green banking services is moderate to a large extent.

TABLE 10: COMPOSITION OF PUBLIC AND PRIVATE SECTOR BANKS

Crosstab				
Count				
		Green Banking Awareness		Total
		Yes	No	
Bank Preference	Public Sector Bank	37	7	44
	Private Sector Bank	9	7	16
Total		46	14	60

Source: Calculated from Primary data

Out of 60 respondents, 43(72%) customers prefer public sector banks and 17(28%) customers prefer private sector banks. Hence it can be concluded that the majority of the respondents are from public sector banks. The above table shows a relation between bank preference and green banking awareness. Here respondents prefer public sector banks more than private sector banks. The number of respondents who are unaware of the green banking services is the same both for public sector and private sector banks.

Part 2: Awareness of the Respondents Regarding Green Banking Services

TABLE 11: AWARENESS LEVEL OF RESPONDENTS:

Sl. No.	No. of Respondent
Yes	46
No	14
Total	60

Source: Calculated from Primary data

When interrogated about whether the respondents are aware of the existing green banking services or not, the majority of the respondents with a count of 46(77%) said that they were aware of it. A minor group of 14(23%) respondents said that they were unaware of it. The reasons for their unawareness are analyzed further.

TABLE 12: AWARENESS AND USAGE

Sl. No	No. of Respondent
Yes, I am aware but I do not prefer using them due to lack of knowledge and operational complexities	17
No, I am not aware	5
Yes, I am aware and use them frequently	38
Total	60

Source: Calculated from Primary data

Awareness not only means knowing about it but also using them in their daily life. To study that aspect, respondents were interrogated about whether they use green banking services apart from being aware of it. To that interrogation, responses have been inferred that a maximum of 38 (64%) respondents are aware of the green banking services and use them frequently in their daily lives. 17(28%) respondents have declared that though they are aware of the green banking services they do not prefer using them due to lack of knowledge and technical problems or operational complexities. The remaining 5(8%) respondents have said that they are not aware of the green banking service.

TABLE 13: VIEW OVER SUSTAINABILITY

Sl. No	No. of Respondent
Yes	49
Maybe	11
Total	60

A total of 60 respondents irrespective of their level of awareness regarding green banking services were interrogated to analyze their view on the term sustainability because one the motives of green banking is to build a sustainable environment by reducing carbon footprint. 49(82%) respondents think that green banking helps in sustainability, whereas a small group of 11(18%) respondents are not so sure whether green banking helps in sustainability. Hence a majority of the respondents think that green banking helps in sustainability, which is a good sign.

Part 2A: Respondents who did not know about Green Banking Services and Reasons for Unawareness

TABLE14: REASONS FOR UNAWARENESS

Sl. No	No. of Respondent
Access issues / Inadequate infrastructure facilities	2
Unawareness	9
Lack of Knowledge	4
Operational Complexities	1
Total	60

Source: Calculated from Primary data

The 14 respondents who declared that they were unaware of the green banking services were interrogated further to analyse their reasons for such unawareness. From the above table, we can see that 9 respondents have stated their reason for unawareness as 'technical

unawareness'. 4 respondents are unaware due to 'lack of knowledge', 2 respondents are unaware because of 'access issues/inadequate infrastructure facilities' and 1 respondent is unaware due to 'operational complexities'. Hence, we can infer that the majority of the respondents are unaware due to technical unawareness. The remaining 46 respondents who stated that they were aware of the green banking services and used them frequently were interrogated separately to analyze their perspectives. It is further inferred in the next part.

Part 2B: Respondents who were aware of the Green Banking Services

TABLE 15: PREFERENCE FOR GREEN BANKING SERVICES

(Respondents could choose multiple options)

Sl. No	No. of Respondent
Online Banking	39
Mobile Banking	35
RTGS	10
NEFT	18
Green Credit Card	4
Green Savings Account	8
Green Deposit	8
Green Loan	5

Source: Calculated from Primary data

Out of the 46 respondents who claimed that they are aware of the green banking services and use them frequently, were further asked about their preferences regarding different green banking services available. Out of these responses, all respondents have said that they prefer using online banking, mobile banking and NEFT the most. Green Credit cards, green savings accounts, green deposits and green loans are certain newer concepts in green banking and the sample respondents are aware of them and use them too. 8 respondents use green savings accounts and green deposits each. 5 respondents use Green Loans and 4 respondents use green credit cards. Being aware and simultaneously using them is a good sign on the path of sustainability.

TABLE 16: SOURCE OF KNOWLEDGE

Sl. No	No. of Respondent
Word of Mouth	8
Notifications displayed in Bank and ATM	10
Advertisement/Social Media	14
Newspaper/Magazines	4
Online Notifications, SMS and Email	10
Total	46

Source: Calculated from Primary data

The source of knowledge and awareness of the 46 respondents is studied next. 14(30%) respondents have gained their awareness from 'advertisement/social media'. 10(22%) respondents each have gained their awareness from 'notifications displayed in bank and ATM' and from 'Online notifications, SMS and Email'. 8(17%) respondents gained their awareness from 'word of mouth'. The remaining 4(9%) respondents have gained their awareness from 'newspapers/magazines.

TABLE17: AWARENESS AND FREQUENCY COUNT

(Respondents could choose multiple options)

Banking App	Most Frequent and Aware Count
PNB One	17
SBI YONO	27
Axis Mobile	10
Kotak Mobile Banking App	6
IDBI GO Mobile	5
HDGC Mobile Banking App	15

Source: Calculated from Primary data

Different banks provide their own online banking app where their customers can smoothly carry out their banking transactions without visiting the banks in person. This is an initiative taken towards green banking services. Therefore, we aim to study how much our respondents are aware of such banking apps and which banking app is most well-known and frequently used by the respondents. Hence from the table above we can see that the SBI YONO app provided by SBI is most frequently used by the respondents and is most well-known among our respondents followed by the PNB

One app provided by PNB Bank.

Part 3: Measure of Customer, Environmental and Economic Prospects regarding Green Banking services among all the respondents:

TABLE 18: MEASURE OF CUSTOMER PROSPECT

Likert Scale Measure	No. of Respondents
Strongly Disagree	4
Maybe	13
Agree	16
Strongly Agree	27
Total	60

Source: Calculated from Primary data

Customer prospects include cost and time saving, 24/7 access, physical security, and improved experience. Respondents' perspectives of whether customer prospect will be a benefit towards green banking were aimed to be studied through this Likert scale question. On a scale of 1 to 5, 5 is "strongly agree" and 1 is "strongly disagree. Here from this table above, we can see that 27 respondents strongly agree that customer prospect will be a benefit towards green banking. Very few respondents disagree on this term. A majority of the respondents agree on this term.

TABLE 19: MEASURE OF ENVIRONMENTAL PROSPECT

Likert scale measure	No. of Respondents
Strongly Disagree	2
Maybe	12
Agree	14
Strongly Agree	32
Total	60

Source: Calculated from Primary data

Environment prospects include minimum paperwork, a hygienic environment, sustainability, and encouragement to go green. Respondents' perspectives of whether environmental prospects will be a benefit towards green banking were aimed to be studied through this Likert scale question. On a scale of 1 to 5, 5 is strongly agree and 1 is strongly disagree. Here from this table above, we can see that 32 respondents strongly agree that customer prospect will be a benefit towards green banking. Very few respondents disagree on this term. A majority of the respondents agree on this term.

TABLE 20: MEASURE OF ECONOMIC PROSPECT

Likert Scale Measure	No. of Respondents
Strongly Disagree	1
Maybe	16
Agree	16
Strongly Agree	27
Total	60

Source: Calculated from Primary Data

Economic prospects include cashless transactions, reduced corruption and tax evasion, transparency and accountability. Respondents' perspective of whether Economic prospects will be a benefit towards green banking were aimed to be studied through this Likert scale question. On a scale of 1 to 5, 5 is strongly agree and 1 is strongly disagree. Here from this table above, we can see that 27 respondents strongly agree that customer prospect will be a benefit towards green banking. Very few respondents disagree on this term. A majority of the respondents agree on this term.

8. HYPOTHESIS TESTING

Regression Analysis for the formulated two hypotheses.

Hypothesis - 1

The following hypothesis is formulated:

H_0: Customer awareness about the green banking services of commercial banks does not vary across the type of ownership and location of banks.

H_1: Customer awareness about the green banking services of commercial banks varies across the type of ownership and location of banks.

TABLE 21: TEST STATISTICS FOR HYPOTHESIS -1

Test Statistics			
	Type of Ownership of Bank	Location of Bank	Green Banking Awareness
Chi-Square	13.067a	156.000b	17.067a
df	1	9	1
Asymp. Sig.	0.000	0.000	0.000

Source: Author's self-calculation

From the above Test statistics of the Chi-Square Test, Asymp Sig. The value for all the variables is 0.000 which is <= 0.05. Hence, we reject the Null Hypothesis.

Hypothesis - 2

The following hypothesis is formulated:

H_0: The Customer prospect, Environmental prospect and Economic prospect of the green banking services of the commercial bank are not different across the bank preferences and the location of banks.

H_1: The Customer prospect perceived quality, Environmental prospect and Economic prospect of the green banking services of the commercial bank are different across the bank preferences and the location of banks.

TABLE 22: TEST STATISTICS FOR HYPOTHESIS - 2

Test Statistics					
	Type of Ownership of Bank	Location of Bank	Customer Prospect	Environmental Prospect	Economic Prospect
Chi-Square	13.067a	156.000b	18.000c	31.200c	22.800c
df	1	9	3	3	3
Asymp. Sig.	0.000	0.000	0.000	0.000	0.000

Source: Author's self-calculation

From the above Test statistics of the Chi-Square Test, Asymp Sig. The value for all the variables is 0.000 which is <= 0.05. Hence we reject the Null Hypothesis.

9. FACTOR ANALYSIS

We can use the KMO and Bartlett's test, which measures the sampling appropriateness for all the variables, to demonstrate that the data is appropriate for factor analysis. A higher KMO test value typically indicates that the variables in the data are connected, which suggests factor analysis may be helpful.

The KMO table obtained from this particular study is represented below -

TABLE 23: KMO AND BARTLETT'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.524
Bartlett's Test of Sphericity	Approx. Chi-Square	85.866
	df	45
	Sig.	.000

Source: Author's self-calculation

The KMO measure obtained from the table above is 0.524 indicating that there may be a correlation between the variables, making it a desirable score for factor analysis.

The KMO table confirms the appropriateness of factor analysis since p-value or sig value is <= 0.05

Communalities are the means by which the percentage of data derived from every variable to create the four final components is measured. Consequently, communalities calculate the percentage of variance attributed to each of the four components.

TABLE 24: COMMUNALITIES

Communalities		
	Initial	Extraction
Age	1	0.548
Gender	1	0.544
Annual income	1	0.607
Occupation	1	0.755
Educational Qualification	1	0.711
Location of banks	1	0.577
Type of bank account	1	0.419
Bank preferences	1	0.791
Bank AC	1	0.697
Green banking awareness	1	0.549
Extraction Method: Principal Component Analysis.		

Source: Author's self-calculation

From the above table, it can be observed that 'Bank Preferences' captures the highest variance giving us 79.1% extraction of the component.

TABLE 25: TOTAL VARIANCE EXPLAINED

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	**Cumulative %**
1	2.171419817	21.7142	21.71419817	2.171419817	21.71419817	21.7142
2	1.614128105			1.614128105	16.14128105	37.85548
3	1.322518853	13.22519	51.08066775	1.322518853	13.22518853	51.08067
4	1.090325146	10.90325	61.98391921	1.090325146	10.90325146	61.98392
5	0.956163357					
6	0.820624886	8.206249	79.75180165			
7	0.76876809	7.687681	87.43948255			
8	0.500017708	5.000177	92.43965963			
9	0.454604896	4.546049	96.98570858			
10	0.301429142	3.014291	100			
Extraction Method: Principal Component Analysis.						

Source: Author's self-calculation

According to the total variance explained in Table 4 components are extracted based on the Eigen values greater than 1.

Total number of Eigen values>1 = 4 = Total number of components.

The principal component is components 1 which explains 21.714% of the variability.

TABLE 26: COMPONENT MATRIX

Component Matrix				
	Components			
	1	2	3	4
Age	0.6	0.171	0.114	0.382
Gender	-0.393	0.225	0.234	0.533
Annual Income	0.736	0.196	-0.112	0.122
Occupation	0.846	0.084	0.174	0.046
Educational Qualification	0.175	0.419	0.32	-0.635
Location of Banks	-0.035	0.603	0.386	-0.251
Type of Bank Account	-0.385	0.29	0.428	0.058
Bank Preferences	0.132	0.719	-0.468	0.194
Bank Account	-0.124	0.207	-0.737	-0.308
Green Banking Awareness	-0.434	0.553	-0.12	0.202

Extraction Method: Principal Component Analysis.
4 components extracted.
Source: Author's self-calculation

TABLE 27: ROTATED COMPONENT MATRIX

Rotated Component Matrix				
	Components			
	1	2	3	4
Age	0.732	-0.018	0.097	-0.052
Gender	-0.059	0.015	0.726	-0.116
Annual Income	0.73	0.152	-0.224	0.027
Occupation	0.804	-0.148	-0.249	0.153
Educational Qualification	0.044	0.002	-0.193	0.82
Location of Banks	0.06	0.097	0.261	0.704
Type of Bank Account	-0.198	-0.1	0.517	0.321
Bank Preferences	0.309	0.814	0.164	0.083
Bank Account	-0.266	0.695	-0.376	-0.045
Green Banking Awareness	-0.186	0.492	0.509	0.116
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 5 iterations.				

Source: Author's Self Calculation

The following factors can be used to group the variables based on the Rotated Component Matrix:

TABLE 28: COMPONENT

Components			
1	**2**	**3**	**4**
Age		Gender	
Annual Income			
Occupation			
			Educational Qualification
			Location of Banks
	Bank Preference	Type of Bank Account	
	Bank Account		
		Green Banking Awareness	

Source: Author's self-calculation

10. SUMMARY OF FINDINGS

- From reliability analysis we have checked that the Cronbach alpha value was 0.829 indicating that the data is sufficient and reliable.
- We have inferred from this study that there is an effective encouragement to promote green banking services from both the public sector banks and private sector banks. Though this encouragement is on a moderate level.
- Majority of the respondents prefer public sector banks over private sector banks.
- Majority of the respondents are males. The main age group of this sample is 18-28 years of age. The majority of the respondents are qualified as graduates, average earnings between 10000-100000.

- From our findings we can say the vast majority of those surveyed are aware of the services offered by green banks. A few of the (14 out of 60) respondents are unaware of green banking services the reasons of which are mainly technical unawareness and lack of knowledge followed by complexities and access issues.
- 17 out of 60 Respondents who are aware of the green banking services do not prefer using them due to lack of knowledge and complexities.
- Out of these responses all respondents have said that they prefer using online banking, mobile banking and NEFT the most. Green credit cards, green savings accounts, green deposits and green loans are certain newer concepts in green banking and the sample respondents are aware of them and use them too.
- From our analysis it has been inferred that the main source of knowledge of green banking comes from advertisement/social media, followed by notifications displayed in banks and ATM. Hence, we can infer that banks are taking steps to keep their customers aware but on a moderate level.
- From our study to measure the awareness and frequency of usage of different banking apps provided by different banks, we can see that the SBI YONO app provided by SBI is most frequently used by the respondents and is the most well-known among our respondents followed by PNB One app provided by PNB Bank.
- Majority of our respondents strongly agree that customer, environmental and economic prospects will be a benefit for green banking in the long run.
- From our chi-square test, we can infer that customer awareness about the green banking services of commercial banks varies across the type of ownership and location of banks.
- From the Second chi-square test, we can infer that The Customer prospect, Environmental prospect and Economic prospect of the green banking services of the commercial bank are different across the bank preferences and the location of banks.
- Factor analysis was conducted to infer whether customer awareness about the green banking services of the commercial banks not only varies across the type of ownership and location of banks but also differs across the gender, age, educational qualifications and occupation of the customers. The KMO table confirms the appropriateness of the factor analysis since sig <=0.05.

11. MAJOR RECOMMENDATIONS

The major recommendations are as follows -

- The group of respondents who are unaware of the green banking services are mainly due to technical issues and access problems. Such customers may be still present in our society who need to be familiarized with the concept of green banking. Both public and private sector banks should take this initiative to guide customers regarding their green banking services.
- If the banks slowly turn this moderate encouragement to a large extent, unawareness among customers will start fading away. The main reason behind this is technical unawareness. Even if the customers are aware of the green banking services, they do not prefer using them due to complexities and lack of knowledge.
- Hence if the banks take the initiative to set up camps imparting knowledge regarding their existing green banking services or any new schemes that are coming up in the recent era, it can be assumed that customers will be totally aware of the green banking services.
- Further we can infer that only SBI's and PNB's online banking app is most commonly known and used among our respondents. Many other banks have their very own banking app but their customers are not much aware and do not prefer using them frequently. It may be linked with the lack of knowledge and technical complexities due to which the customers though aware, do not prefer

using them. Such banks should take the initiative to overcome this hurdle and take steps to make their customers fully aware of their apps so that they can confidently participate in green banking.

12. FUTURE SCOPE OF STUDY

In our study customer awareness has been focused upon. Customer satisfaction towards green banking services is also a part of studying green banking services; whether the customers are satisfied by such green banking services or not. Future research can be done on this aspect**.** This study has been done with an overall analysis of various districts of West Bengal. There is scope to narrow down and study a particular district of West Bengal which may give a more detailed analysis. This study has been done with an overall analysis of various bank including public and private sector banks of West Bengal. There is scope to narrow down and study a particular bank of either the public sector or private sector of West Bengal which may give a more detailed analysis.

13.CONCLUSION

Banks launched a plethora of eco-friendly goods and services as part of their Go Green initiatives. Banks are the primary source of money for several businesses, and the sustainability of the environment is impacted either directly or indirectly by their operations. The customer's awareness, use, quality, efficiency, cost, and intensity of issues associated with using commercial banks' green banking services in West Bengal's various districts are all included in this study. There are many bank branches in West Bengal, but not all of the state's green banking services are accessible. This is primarily because of a lack of infrastructure, the need for large investments, connectivity problems, a lack of technical expertise and education on the part of customers, and a lack of awareness on the part of older customers who prefer to use the traditional banking system. Additionally, service fees contribute to the moderate awareness and use of West Bengal's commercial banks' green banking services.

The success of commercial banks' green banking services depends on the availability of a range of services, active consumer participation, teamwork, and maximum use of all available services. Green banking techniques are ways to protect the environment and cut down on carbon emissions from different industries, however, achieving these goals will require cooperation from all other sectors. Go green for tomorrow to come. Our next generation won't have any green left if we spend it all.

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