

A Quantitative study on Green banking practices in Tamil Nadu

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Abstract

Purpose: Green Banking Practices (GBP) refer to environmentally sustainable banking practices that reduce the environmental impact of financial institutions while promoting environmentally friendly activities. This article's goal is to examine GBP, their adoption factors, employee perception and the significance in public and private sector banks. The function and contribution of banks to environmental sustainability are also covered in this study.

Design: It is a quantitative study empirically made during the month of December 2022. 200 respondents from top 5 banks (40 each) coming under public and private sectors have been selected incorporating the random sampling technique. A structured questionnaire has been employed to collect the data from the respondents. Banking practices are essential for banks to operate effectively and provide quality services to their customers.

Findings: The outcomes of the study indicates that the GBP have a positive influence on the adoption factors, employee perceptions and a positive effect on the public and private sector banks. Green banking can have a significant positive impact on the environment by directing financing towards environmentally friendly projects.

Implications: With regard to regulatory and policy frameworks for green banking: Future studies should examine the influence of government policies and regulations of GBP and explore ways to strengthen these frameworks to promote the growth of the green economy.

Originality: The article identifies the need for GBP in sustainability. This article also summarizes the notion of green banking besides outlining some methods and analyzing green banking initiatives by the banking sector.

Keywords: Environment-friendly, Green banking, Greenhouse gas emissions, Green economy, Environmental friendly Technology, Sustainable development.

1. Introduction

Humans are continuing to involve in various activities, which are harmful to the ecosystem. Consequently, the entire world is facing the challenges regarding the change in the environment like heat waves and floods (Zheng, Siddik, Masukujjaman, Fatema, et al., 2021). There are many concerns for the issues associated with the environment is raising worldwide and at present among the institutions as well as enterprises, paving the way for the advancement of different techniques in evaluation (Sarma et al., 2021). Every financial organizations are influencing the economic development of the nation in quality as well as quantity. The banks are playing an

important role in developing the economic growth and thereby providing protection to the environment. All other sectors are taking initiatives in providing the environmental-friendly products to the consumers. Likewise, the sector involving banking is also taking many initiatives in providing eco-friendly products to the consumers. Among that, the concept of green banking is followed by many of the banks in the world in order to follow the practices that are eco-friendly, thereby minimizing the wastes. These practices are adopted by the banks in promoting the banking that is paperless (Jayanthi et al., 2018). These practices are followed in three aspects including social, environment and economic. The banks are adopting these practices with the motive of reducing the energy as well as writing work of the employees as well as the customers. The advantages of these GB are given to the industries, customers and also for the activities for enhancing the economic growth.

1.1. Background of the study

The concept of green banking is emerging worldwide, playing a significant role in operations of the financial institutions, environmental policies thereby promoting the socio-economic growth (Khairunnessa et al., 2021). This novel concept was initiated by the Triodos Bank, a Dutch bank in the year 1980 (Yadav & Pathak, 2013). Further, this bank has developed the policy of green funds and thereby being a reference for other banks in adopting the GBP. This has become prevalent in the recent years as the external stresses, which were faced by the banks are provided with the solutions by adopting the practices that are sustainable to the environment (Khairunnessa et al., 2021). Digitalization supports sustainable economies transformation by promoting growth and improving overall productivity, in digital banking and trade as significant role (Hao et al., 2023). Sustainability of activities in fintech has made the researchers to analyse the relationship among digital banking and sustainability of environment. Moreover, reliable adoption and digitalized efficient payment system both at cross border and national level is the significant strategy for decreasing the inequality and improving sustainability of environment (Yan et al., 2022).

The adoption of green strategies are seen as a strategy, which is socially responsible affirming the commitment of the banks to the corporate social responsibility (CSR), and thereby serving as a measure to fortify the performances of the banks (Bank, 2019). This has been considered as a challenge, which has been faced by most of the banks in adopting as well as implementing the GBP, which are very important in present days (Alshebami, 2021). The assertions that were given by the firms regarding the environment, has become an important factor where the investors create a basis for their decisions (Masukujjaman et al., 2016). They are evaluating the businesses depending upon their standards of eco-efficiencies, paving the way for these businesses in making their investments in innovation of green products resulting in increased investment returns, and reduced degradation of eco-system (Rifat et al., 2016).

The requirements in adopting the GBP are deliberated as vital owing to the benefits including social, corporate as well as environmental (Khan et al., 2021). Additionally, this green banking concept could be employed as the competitive benefit for the retention of customers, resulting in increased need for an environment that is ideal, and switching the attention of the clients from the traditional banking practices to the GBP (Iqbal et al., 2018).

Green banking is becoming increasingly popular among banks due to several benefits, including improving the bank's environmental performance. Green banking is a proactive method of reducing one's carbon footprint and protecting the natural environment (Tara & Singh, 2014). The primary advantage of using a "green banking" strategy is that it helps to preserve the natural world. Customers may complete their numerous financial activities using electronic methods such as automated teller machines, mobile banking, internet banking, and so on under green banking, which prioritizes the elimination of paper work to the greatest extent possible (Kujur et al., 2016). The use of electronic transactions not only contributes to the goal of preserving the environment but also makes business more convenient for both clients and financial institutions. If there is less paperwork, there will be less need to chop down trees (Lalon & sciences, 2015). Banks should adopt environmental criteria of lending in order to enhance the quality of their assets and facilitate the implementation of environmentally friendly business practices. The environmental performance of the bank's customers is also significantly impacted by this action of the bank, which has a very substantial impact. This is a brand-new concept that has just been introduced in Sri

Lanka. Green banking may be a deserving subject to investigate in order to enhance the quality of services offered by the banking industry in throughout the course of the longer term.

The present research will examine the factors influencing the adoption of GBP, perception of the employees towards the GBP and effect of GBP on public as well as private sector banks. This paper provides a detailed literature review on the factors influencing the adoption of GBP, perception of employees towards the GBP and effects of GBP on the environmental performances. Then methodology incorporated in this research including research design, data collection and participants, research instruments and ethical considerations are provided. This is then followed by the results and discussions. Finally, the conclusion of this study along with the future recommendations are provided.

1.2. Significance of the study

GBP requires every activities to be environment friendly and thereby enhancing the sustainability of the environment. These practices are avoiding the works done on the paper and making the usage of digital transactions like ATM banking, SMS banking as well as Internet banking. These banking practices helps in controlling the deforestation. This has paved the way for making the transactions at anywhere, anytime in a rapid manner. As a result, these GBP have reduced the time taken to write and also send the cheques. Every banks consider that following the GBP for a longer period of time would pave the way for a greater future and thereby providing a better environment.

The present study examines the GBP as eco-friendly banking practices. The concept of green banking is getting progressed in the recent years. The green banking concept is prior to the other concepts owing to the searchin withstanding the banks as well as the societies when compared to the challenges caused due to social unrest, corporate scandals, financial occurrences, and also environmental crises that are unpredictable. This concept is imperative in the banking sector because trust plays an important role in sustaining the eco-friendly relationships for a longer duration of time. GBP improves the performance of the environment with respect to the society, thereby providing automated cost-effective ways in developing consciousness as well as the awareness on society, nation as well as environment.

1.3. Problem Statement

The traditional banking sector has a significant impact on the environment and sustainability due to its heavy reliance on paper-based transactions, energy-intensive operations, and financing of unsustainable projects (Lalon & sciences, 2015). As a result, there is a growing concern among stakeholders about the negative environmental and social impacts of the banking industry, and the need for banks to adopt more sustainable practices (Kujur et al., 2016). Green banking is a concept that aims to promote sustainability in the banking sector by encouraging financial institutions to adopt environmentally-friendly practices in their operations and investments. The risk perception based on evolution of technology and market development is the green investors' concern (Debrah et al., 2022). However, despite the growing importance of green banking, there are several challenges including the adoption cost, competition over other banks and many other issues that need to be addressed. Prior literatures have analysed impact of green banking on environment, yet have not analysed the adoption factors, and employee perceptionsonGBP. The present research will address these issues in filling these gaps and thereby providing the importance of GBP.

1.4. Objectives of the Study

The objectives of the study include

- To identify the factors influencing the adoption green practices in the banking sector.
- To analyze the perception of the employees towards the GBP.
- To examine the effect of GBP on public and private sector banks.

2. Literature Review

2.1. Factors influencing the adoption of GBP

An economy's physical as well as social sustainability is based on applying green practices, implementing the services, processes as well as products that are eco-friendly. This study (Ellahi et al., 2023) has identified the developments in the adoption of GBP by incorporating Structural Equation Model (SEM). As a result, it was found that the most of the people showed a great interest in adopting the GBP. In this study, education on GBP has shown a significant impact in adoption of GBP. Yet, another study (Bukhari, Hashim, Amran, et al., 2019) has made an analysis in examining the adoption of GBP in Islamic banking sector through secondary data. As a result, the GBP are influenced by the education on that practices and marketing of green products and services. Also, the prevailing study (Nweke et al., 2020) has examined the awareness of people on GBP in Nigeria through secondary data. The outcomes of the study has indicated that the infrastructures, and education, are the factors influencing the adoption of GBP. The existing study (Bukhari, Hashim, & Amran, 2019) has identified the factors involved in the adoption of GBP. It was found that the institutional or external factors like pressures from the communities, competitors as well as the customers have played a significant role in adoption of GBP. This study (Zheng, Siddik, Masukujjaman, & Fatema, 2021) has made a research on analysing the impact of GBP in the banks located in Bangladesh. The factors influencing the adoption of GBP was found that enhanced usage of technologies, innovations in green financing products, and consciousness in ecological as well as social aspects.

The prevailing study (Bose et al., 2021) has analysed that whether the adoption of GBP have shown significant improvements in the bank's performance or not by adopting a lead-lag approach. This study was carried out in Bangladesh banks. As a result, it was found that, cost efficiency is a factor causing an impact in adopting the GBP. The existing study (Kumar & Sustainability, 2019) has examined the effects of GBP on Indian banking sectors through semi-structured interviews. The results of this study has indicated that factors like uniform sustainable banking policy as well as cost of adoption had a significant effect on adoption of GBP. Yet, this study (Sharma et al., 2022) has investigated whether the impact of GBP shown a significant improvements in the performances of the banks. As a result, it was found that creation of trust among the people was a major factor in adopting the GBP.

2.2. Perception of the employees towards GBP

The evolving trends of green banking services are deserving a great attention. The recognition of green banking services are increasing as the management of banking are promoting these practices among their employees. This study (Rubel et al., 2021) has investigated the perception of the employees towards the green banking services in Bangladesh banks. This study has employed partial least square method examining for 365 frontline employees. As a result, it was found that GBP have a positive influence on employee perceptions thereby contributing to sustainability and environmental protection. Yet, another study (Rifat et al., 2016) has analysed the bankers' perception on GBP in Bangladesh banks. The outcomes of this research has confirmed that the expectancy of efforts and performances, behavioural intentions, and environmental concerns had a significant relationship on perception of the bankers. The prevailing study (Vijai & Natarajan, 2015) has examined the bankers' perceptions on GBP in Cuddalore. This study has employed multi-stage sampling method for 175 employees. The results of this study has shown that there was no significant impact towards the employee perceptions and have also reduced the work loads. This research (Okyere-Kwakye et al., 2021) has made an analysis on examining the perceptions of the employee on adoption of GBP in the banks of Ghana. The study has employed the multiple regression for 94 employees. As a result, a positive impact was found regarding the employee perception on GBP.

The existing study (Masukujjaman et al., 2016) has examined the employee perceptions on GBP in Dhaka, Bangladesh. This study has employed the bankers from 21 branches through questionnaires in SPSS software. As a result, it was found that the perceptions of employees has shown a positive significance and they were compatible to the GBP to contribute the sustainability of the environment. However, this research (Gupta & Development, 2015) has evaluated the employee perceptions on the green banking services possessed by ICICI

bank, State Bank of India and Punjab National Bank in India by utilizing the secondary data from the banks. As a result, this study has shown a positive significance on employee perceptions. The prevailing study (Masukujjaman et al., 2015) has investigated the perceptions of bankers on Bangladesh banks. This study has employed a set of questionnaires through SPSS software. The outcomes of this study has indicated the bankers had a positive perception, although the adoption cost for GBP were high thereby increasing the competitive advantage over other banks. Yet, this research (Aldeen et al., 2020) has made an examination in analysing the awareness of employees on the GBP in the banks of Syria. This study has employed a qualitative methodology in the form of semi-structured interviews. As a result, it was found that majority of the employees were aware of GBP.

2.3. Effects of GBP on environmental performances

Nowadays, numerous banks are facing the challenges in implementing the GBP thereby delaying the sustainability of the environment. This study (Zhang et al., 2022) has made an analysis on examining the effects of GBP in environmental performances in Bangladesh's private commercial banks. This study has employed primary data from employees for 352 people by incorporating Structural Equation Modelling (SEM). As a result, it was found that through GBP the environmental sustainability was improved and thereby increasing the competitiveness over the other banks. The prevailing study (Ibe-enwo et al., 2019) has examined the effects of GBP in the marketing perspectives. This study has utilized the SEM method for in North Cyprus for 551 consumers. The results of the study has indicated that the factors such as loyalty and trust has affected the sustainability of the environment. Yet, another study has conducted a research on analysing the influence of GBP in the banks of Bangladesh. This study (Khairunnessa et al., 2021) has utilised secondary data obtained from the annual reports of the banks and other websites. The outcomes of this study has demonstrated that the banks in Bangladesh was far behind when compared to other countries in terms of environmental performances. This study (Sun et al., 2020) has analysed the role of CSR in GBP by adopting SEM technique in Pakistan banking sector. The initiatives on GBP has confirmed that CSR has improved the loyalty of the consumers thereby increasing the sustainability.

The prevailing study (Julia & Kassim, 2020) has examined the financial performances of the selected banks in Bangladesh through the adoption of GBP. The study has utilised the secondary data obtained from the annual reports of the banks as well as qualitative method in the form of interviews. As a result, it was found that the GBP was not completely efficient in maintaining the sustainability of the environment in the Bangladesh banks. The existing study (Sharmeen et al., 2019) has compared the green as well as traditional banking practices in Bangladesh bank sector. This study has used the secondary data obtained from the annual reports of the selected banks. The outcomes of this study has indicated that the banks have shown a positive significant improvements when switching from traditional to GBP and the employees had an environmental awareness on these practices. Yet, another study (Arulrajah et al., 2020) has made a research on examining the sustainability of the environment through GBP and behaviour of the employees towards the GBP. The study has employed a questionnaire for 220 bank employees in the country of Sri Lanka. As a result, it was found that the relationship between the sustainability of the environment as well as GBP was mediated by the behaviour of the employees in Sri Lankan banking sector. This research (Zhu et al., 2021) has examined the impact of GBP on financial and also the environmental performances of the banks on the incorporation of Big Data Analytics. This study has used the quantitative analysis through survey made for 317 bank employees in 37 banks of six nations in Asian continent. The study came to a conclusion that the supply chain practices, that were taken externally as well as internally, has improved the financial and also the environmental performances of these Asian banks.

2.4. Research Gap

- The factors such as ease of transactions and error free transaction has not been explained (Bukhari, Hashim, & Amran, 2019) (Bose et al., 2021).
- Lack of studies in observing the communication time taken by the employers to the customers through GBP (Rubel et al., 2021) (Aldeen et al., 2020).
- The effect of GBP on the shareholders of the banks were not explained (Bukhari, Hashim, Amran, et al., 2019) (Okyere-Kwakye et al., 2021).

3. Methodology

3.1. Research Design

The existing research is contingent on the descriptive as well as empirical studies. This research incorporates a quantitative analysis by obtaining the primary data. The collection of primary data was achieved through assessment with the aid of questionnaires and after that the collected data is examined by utilizing the SPSS tool. The primary data is gathered for about 200 respondents from the employees of banking sector.

The research design involving the primary stage identifies the factors that influence the adoption of GBP, perception of the employees towards the GBP, as well as the impacts of GBP on the environmental performances. According to the design, the research is quantitative as well as investigative, that seeks in uncovering the factors as well as the impacts of GBP in the banks. The positive as well as the negative impacts would also affect the performance of the banks. The research design is shown in the Figure

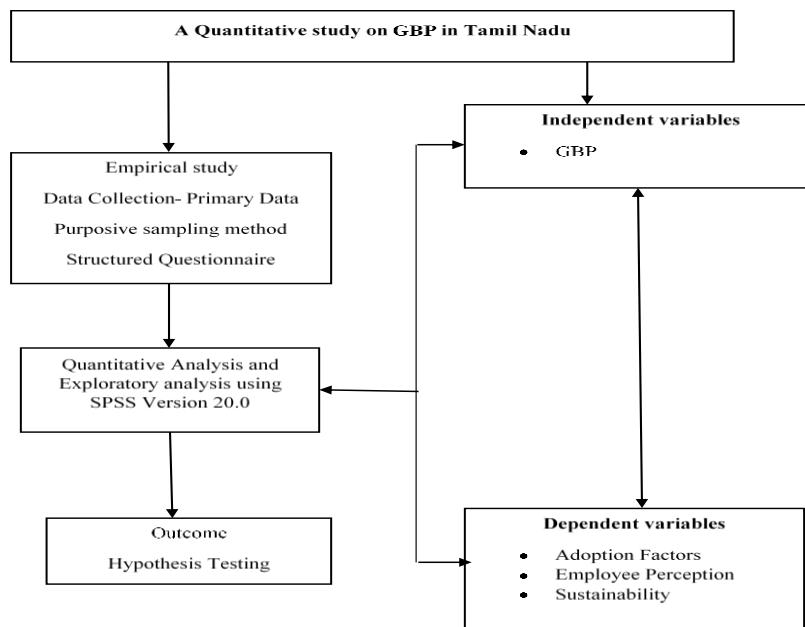


Figure 1. Research Design

3.2. Research Hypothesis

H₁₁: Green banking has a positive influence on the adoption factors.

H₀₁: Green banking has a negative influence on the adoption factors.

H₁₂: Perceptions of employees have a positive impact on GBP.

H₀₂: Perceptions of employees have a negative impact on GBP.

H_1 :GBP have a positive effect on public and private sector banks.

H_0 :GBP have a negative effect on public and private sector banks.

3.3. Data Collection and Participants

The most vital part in a research involves the process of data collection. This procedure depends upon the prominence on the research objectives with a motive of increasing a reasonable knowledge on the research questions. The foremost responsibility of a researcher involves in selecting a method for collection of the data in a suitable manner. In this research, the data is collected from 200 banking employees in Karur and Namakkal districts of Tamil Nadu, in India, investigating the factors as well as the impacts of GBP in the banks. The data is obtained from public as well as the private sector banks including Corporation Bank, Indian Overseas Bank (IOB), State Bank of India (SBI), Indian Bank, and Canara Bank during the month of December 2022.

3.4. Data sampling and sample size

The method applied in this research for selection of respondents is purposive sampling technique. The existing research uses this purposive sampling method in the sources of primary data that is a technique involving non-probability sampling method wherever a researcher can make a decision regarding who should be joined or acquired in the sample (Thomas, 2022). The process involving the selection of respondents is estimated in providing a valuable information of the research. The foremost reason involved in utilizing this purposive sampling approach is due to the construction of the statements depending upon the objectives in which particular people may provide extensive insights that are required for the research questions and as a result, these are needed to be combined into the sample (Denieffe, 2020). The samples that are coming under this purposive sampling strategy are obtained from 200 banking employees.

3.3.1. Sample Size

In this survey, the valuable respondents are filtered through purposive sampling techniques. The sample size utilized in this study includes 200 banking employees. After the collection of data, the data is applied for different variables and evaluated by SPSS tool in accomplishing the aim of this research.

3.4. Research Instruments

The research tools used in the present research are mostly utilized in education, health sciences and social sciences research to inspect students and clients. The current research uses a structured questionnaire to collect data from various respondents. The research instrument utilized in the study is the structured questionnaire, which depicts the survey questions. A set of questionnaires was designed and distributed to banking employees. Every sample possesses the same probability as other research samples to be chosen, serving as a representation of the whole population.

3.5. Data Analysis

Data analysis is a systematic phenomenon for gathering and executing mathematical, statistical, and computational data. The present research uses Quantitative research analysis (Jung, 2019). This method fetches data from banking employees utilizing sampling techniques. Numerical results are obtained in the analysis.

The data are obtained from the specific sample respondents with the support of framed questionnaire, and quantitative methodology is utilized to provide outcome for the research(Norris et al., 2015). The data will be recorded using an Excel sheet to reveal the variables. The SPSS software tool is used for the subsequent estimation stage to analyze the variables entered in Microsoft Excel. The outcomes are estimated using three evaluation approaches. The test used by the researchers are correlation, regression and ANOVA analysis.

The use of SPSS software in this research makes the results effective and consistent in counting the values. The collected data was enumerated with the usage of Excel and SPSS software. Correlation, and ANOVA are accomplished to evaluate the organized hypothesis. The data estimation comprises 3 levels, namely, Microsoft Excel is used to incline the demographic variables, and the design of frequency distribution is done. To list the

data analyzed by statistics to predict the median range and the mean and standard deviation of several variables in this research is a significant step. Hence SPSS software is employed in this research.

3.6. Ethical Considerations

Certain ethics will be followed for collected data from the respondents. As the study is dependent on GBP in the banks of India, the research will deal with the highly confidentiality-based responses. The ethics followed in the research are before the survey assessment of the researcher's information is passed to the respondents in the prior stage. No participants in the survey are forced to give their opinions. The participants willing to share their opinions regarding GBP are alone selected and their view are analysed. Only the responses to the questionnaire are asked of the respondents, their private reports or data are not forced to be exposed by them. All the data organized and gathered would be kept highly confidential. These are the ethical consideration used by the researcher for the research analysis, which is accurate to their knowledge based upon this research study.

3.7. Conceptual Framework

The conceptual framework of the study has been shown in the following figure (Figure 2)

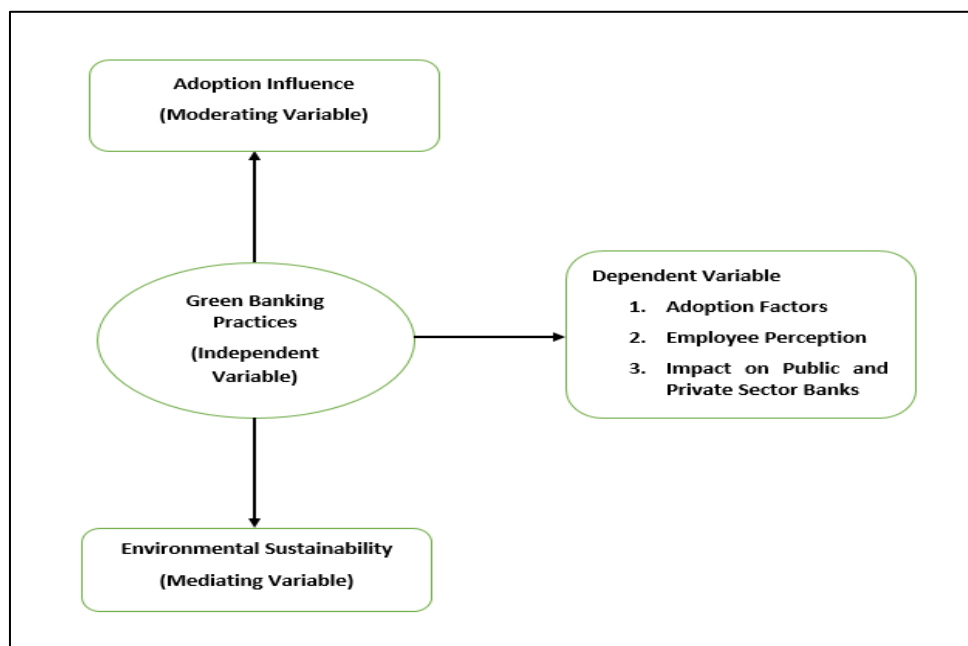


Figure 2. Conceptual Framework of the Study

(Source: Developed for the purpose of the study)

4. Results

The investigation is done on the basis of the responses given by the 200 bank employees of Karur and Namakkal of various designations and various analyses are made in meeting the objectives of the research.

4.1. Demographic Data

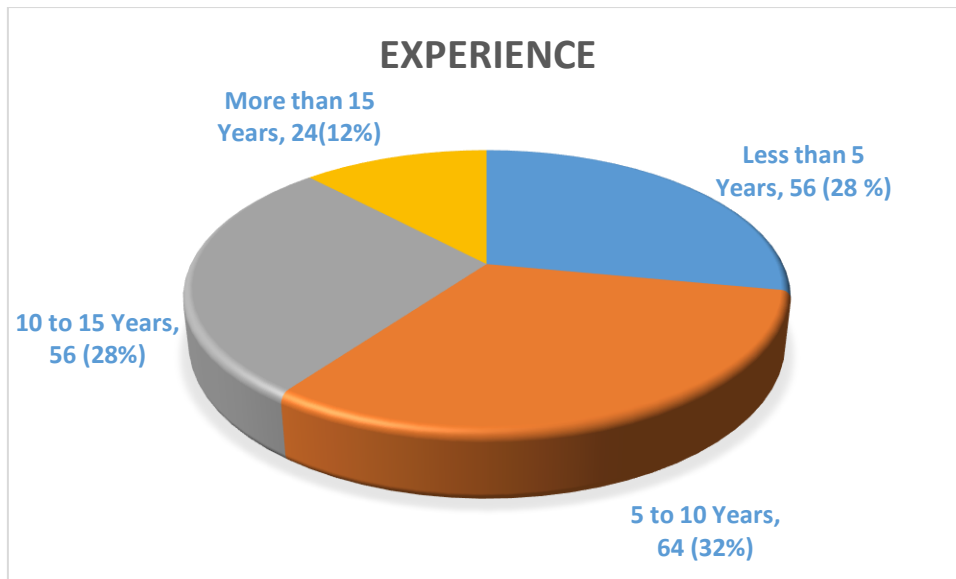


Figure 3. Experience of the bank employees.

Figure 3 shows the experience in the banks for the respondents. It was found that the number of respondents who have experience of less than 5 years was found to be 56 (28 %) people, 5 to 10 years was found to be 64 people (32 %), 10 to 15 years was found to be 56 (28 %) people and more than 15 years was found to be 24 (12 %) people.

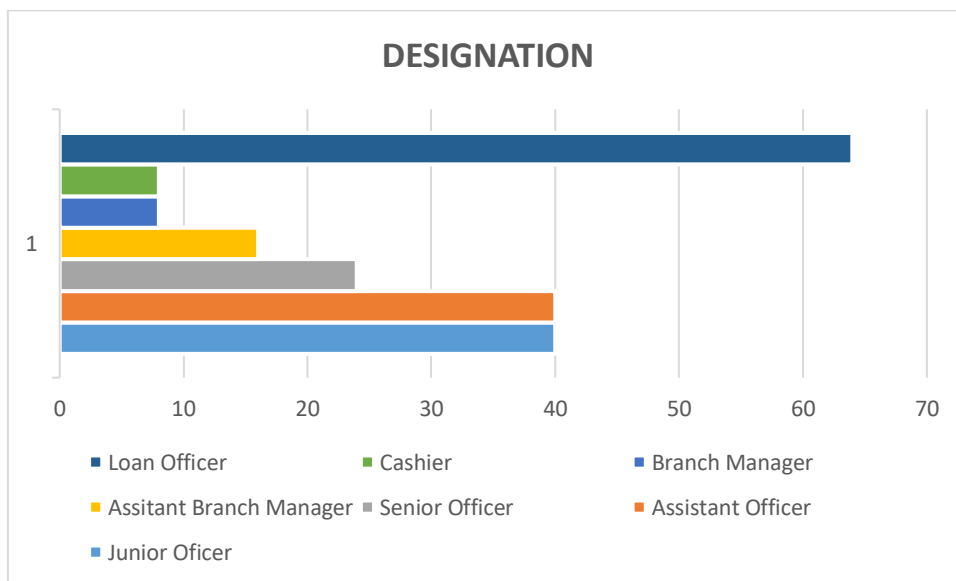


Figure 4. Designation of the Employees.

Figure 4 shows the designation of the employees among the 200 respondents. Among these respondents loan officers are contributing 32 %, (64 people), followed by the assistant officers and junior officers of each 20 % (40 people), senior officer 12 % (24 people), assistant branch manager 8 % (16 people), and cashier as well as branch managers of each 4 % (8 people).

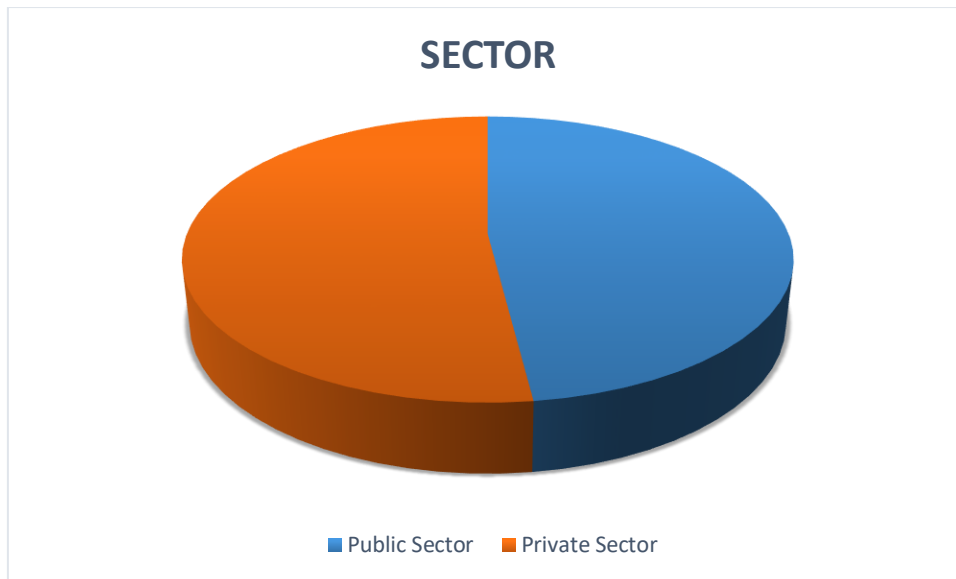


Figure 5. Sectors of the Respondents.

Figure 5 shows the sectors of the banks in which the respondents are working. Among that 52 % (104 people) are working in the banks of public sector as well as 48 % of the people (96 people) are working in the banks of private sector.

4.2. Statistical Analysis of Responses

The data collected through the questionnaires were analyzed through the SPSS software package. The statistical analysis provides the relationship between the study variables and the objectives. This relationship enables us to understand the significance of objectives and validate the hypothesis. This study has performed three different statistical analysis procedures, the one-way ANOVA test, the Correlation test and chi-square tests.

Descriptive Statistics

Questionnaire	N	Mean	Std. Deviation
The bank is maintaining records for several decades, and digitalizing all the records is tedious and time consuming.	200	2.00	1.022
Senior citizens and less educated customers are convenient with the paperless transaction system.	200	2.32	1.227
Most of the literate people depend upon digital transactions.	200	2.16	1.123
To minimize the utilization of renewable energy resources GBP are implemented in the banks.	200	2.16	1.010
Ease of transaction and Error free transaction is an advantage to implement GBP.	200	2.00	.851
Valid N (list wise)	200		

In this Table 1, descriptive statistics has been performed. It is found that the maximum mean value was obtained for the senior citizens and less educated customers are convenient with the paperless transaction system with the mean value of 2.32. Then the factors such as literate people depending upon digital transactions, and minimizing the utilization of renewable energy resources GBP are implemented in the banks is considered as the factors with second priority as these factors are having the mean value of 2.16. At last, factors such as maintaining records for several decades, and digitalizing all the records is tedious and time consuming and ease of transaction and error free transaction are having the mean value of 2.00. As a result, the factor involved in the adoption of GBP has been mentioned in the Table 1.

Bivariant Correlation

Questionnaire		Most of the literate people depend upon digital transactions.	Due to GBP, the communication time taken by the customers and the employers was minimised.
Most of the literate people depend upon digital transactions.	Pearson Correlation	1	.402**
	Sig. (2-tailed)		.000
	N	200	200
Due to GBP, the communication time taken by the customers and the employers was minimised.	Pearson Correlation	.402**	1
	Sig. (2-tailed)	.000	
	N	200	200

** . Correlation is significant at the 0.01 level (2-tailed).

Analysing in Table 2, correlation in data exploration is a statistical method utilized in calculating the power of the correlation or relationship among the measured factors and calculate their association through the significant coefficient value of Pearson. When the Pearson correlation coefficient values of the variables are observed to be the same, they are negatively correlated. The Pearson coefficient value of 0.402 represents that there is a positive relationship between the two considered variable. As most of the people are educated, they become more knowledgeable on the GBP and so the communication time taken by the customers and the employers will get minimised. Here, there is a positive relationship between literate people depending upon digital transactions and the reduced communication time of customers and employers. Hence, there is an association between the considered variables as the significant value is 0.00, which shows that two considered variables impact each other and null hypothesis green banking has a negative influence on the adoption factors can be rejected.

Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	51.759 ^a	6	.000

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Likelihood Ratio	48.606	6	.000
Linear-by-Linear Association	15.547	1	.000
N of Valid Cases	200		
a. 3 cells (25.0%) have expected count less than 5. The minimum expected count is 1.60.			

The chi-square technique is also termed as Pearson's chi-square analysis or the association test, is utilized to identify the relationship between two categorical variables. Table 3 illustrates the relation between attraction of more customers in the banks through GBP and enhancing the usage of technologies thereby contributing to the sustainability of the environment. As depicted above when the significant value is lower when compared with the significant P value that is 0.00, then the analysis is agreed to be a significant one. It has high Pearson Chi-square value of 51.759 and the significant value is less than 0.05. This concludes that the considered variables have strong relationship with one another. Hence, it is proved that GBP have attracted more number of customers resulting in the improved usage of technologies and thereby contributing to the environment.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	20.000	3	6.667	17.193	.000
Within Groups	76.000	196	.388		
Total	96.000	199			

ANOVA analysis is executed to find the association among dependent and independent variable and is represented in Table 4. This research is generally executed to define the statistical variance among independent variables. The significant value attained for the measured concept is 0.00, and hence there exists a significant relationship among independent groups. The two variables considered for defining the statistical variance are the minimised communication time of customers and employers and the GBP helps in long term sustainability of banks. This denotes that the factor through GBP, minimised communication time of customers and employers thereby helping in long term sustainability of the banks. Hence, the null hypothesis perceptions of employees have a negative impact on GBP can be rejected.

Partial Correlations

Control Variables			GBP enhance the handling of technologies thereby contributing to the environment.	Green Banking activities increase the investment of shareholders in the bank.
To minimize the utilization of renewable energy resources GBP are implemented in	GBP enhance the handling of technologies thereby contributing to the environment.	Correlation	1.000	.386
		Significance (2-tailed)	.	.000
		df	0	197

the banks.	Green Banking activities increase the investment of shareholders in the bank.	Correlation	.386	1.000
		Significance (2-tailed)	.000	.
		df	197	0

Partial correlation is defined as the measure of the strength and path of a linear relationship between two variables that are continuous while controlling for the effect of one or more other continuous variables. The above Table 5 illustrates about the correlations of the considered variables that are directly proportional to each other. Pearson coefficient of enhancing the handling of technologies thereby contributing to the environment and increasing the investment of shareholders in the bank were observed to be 0.000. These variables are directly proportional to each other that is, when one variable increases other variable increases simultaneously. As a result, the banks should improve the handling of technologies and so the investment of shareholders would be increased thereby contributing to the environment. Thus the null hypothesis GBP have a negative effect on public and private sector banks can be rejected.

5. Discussion

The norm that has been becoming very important especially in the banking sector is green practices, in order to reduce the negative effects on the environment (Sun et al., 2020). This research has investigated the factors influencing the adoption of GBP, perception of the employees towards the GBP and effect of GBP on public as well as private sector banks. Most of the studies have shown a positive influence on the adoption factors, employee perceptions as well as the effect of GBP. Prior studies have analysed several factors involved in the adoption of GBP. These factors include education (Bukhari, Hashim, Amran, et al., 2019), infrastructures (Nweke et al., 2020), institutional or external factors like pressures from the communities, competitors as well as the customers (Bukhari, Hashim, & Amran, 2019), enhanced usage of technologies, innovations in green financing products, and consciousness in ecological as well as social aspects (Zheng, Siddik, Masukujjaman, & Fatema, 2021), cost efficiency (Bose et al., 2021) as well as the providing the trust on these GBP (Sharma et al., 2022). Yet, the existing studies have analysed that the expectancy of efforts and performances, behavioural intentions, and environmental concerns (Rifat et al., 2016), reduced the workloads (Vijai & Natarajan, 2015) increasing the competitive advantage over other banks are the factors involved in the perceptions of the employees towards GBP. Also, the former studies have analysed the effect of GBP on the customers (Bukhari, Hashim, Amran, et al., 2019) (Nweke et al., 2020) (Bukhari, Hashim, & Amran, 2019) as well as employees (Julia & Kassim, 2020) (Sharmeen et al., 2019) (Arulrajah et al., 2020).

The existing study has found the factors that influence the adoption of GBP such as education, infrastructures, competitive pressures, improved technological usage, and cost efficiency along with the ease of transactions and error free transactions. The perceptions of the employees due to the GBP was found that efforts as well as performances of the banks, creating a competitive advantage over other banks awareness on usage of new technologies. In addition to that, minimized communication time between the customers and employees was identified. Also the effect of GBP in public as well as private banking sectors benefitting the customers as well as employers were identified. In addition to that benefits of shareholders on these practices were analysed in this study.

5.1. Limitations of the study

Banks that incorporate environmental considerations into their decision-making processes may be better positioned to manage risk and take advantage of emerging opportunities in the green economy. This can lead to improved financial performance over the long term. This study has limited in analyzing the financial performances of the banks through the incorporation of GBP.

6. Conclusion

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The present research has examined the factors influencing the adoption of GBP, perception of the employees towards the GBP and effect of GBP on public as well as private sector banks. This paper has provided a detailed literature review on the factors influencing the adoption of GBP, perception of employees towards the GBP and effects of GBP on the environmental performances. Then methodology incorporated in this research including research design, data collection and participants, research instruments and ethical considerations are provided. This is then followed by the results and discussions. Hypothesis were developed and validated. As a result, it was found that the GBP had a positive impact on the adoption factors, employee perceptions and has shown a positive effects on public as well as private sector banks. Green banking can have a significant positive impact on the environment by directing financing towards environmentally friendly projects and companies. This can lead to reduced greenhouse gas emissions, improved resource efficiency, and a more sustainable use of natural resources. Banks that incorporate environmental considerations into their decision-making processes may be better positioned to manage risk and take advantage of emerging opportunities in the green economy. This can lead to improved financial performance over the long term. Green banking can help banks build a positive reputation among environmentally conscious consumers, which may lead to increased customer loyalty and market share. With regard to regulatory and policy frameworks for green banking, Future studies should examine the influence of government policies and regulations of GBP and explore ways to strengthen these frameworks to promote the growth of the green economy.

Declaration

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