



A study of awareness and knowledge of green finance among university students

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Declaration

e of green finance among university students

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Abstract

Purpose:

This study aims to investigate the awareness, understanding, and adoption of green finance among university students at Lovely Professional University (LPU). It seeks to identify the underlying factors influencing students' awareness and comprehension of green finance, as well as examine the perceived barriers hindering the adoption of green financial products among students.

Methods:

The study employed a quantitative research approach, utilizing survey methodology to gather data from a sample of university students at LPU. The survey instrument was designed to assess students' awareness, perceptions, motivations, and barriers related to green finance. Data analysis involved factor analysis to identify key themes

and patterns in the responses.

Findings:

The study revealed that limited information and distrust obstruct green finance investment, yet students exhibit a robust eco-awareness. Knowledge and perception significantly influence adoption, underscoring the need to enhance understanding and address reservations. Additionally, perceived risks associated with green financial products pose significant barriers to adoption.

Significance:

This study offers insights for policymakers, educators, and financial institutions aiming to promote sustainable finance among university students. Addressing information gaps, building trust, and enhancing knowledge are crucial. Further research on cultural, and institutional factors, and the role of technology is recommended.

Keywords:

Green finance, University students, Awareness, Sustainable Investment

1. Introduction

Green finance refers to financial products and services aimed at promoting environmentally sustainable investments and economic growth. With the increasing global awareness of climate change and its impacts, green finance has become paramount. Green finance plays a crucial role in redirecting financial flows towards low-carbon and environmentally sustainable projects, which are essential for achieving global climate goals (Smith and Millar, 2018). Furthermore, researchers like (Brown et al., 2019) emphasize that green finance not only facilitates the transition to a low-carbon economy but also fosters innovation in clean technologies, thereby driving economic competitiveness and resilience.

1.1 Backdrop of Green Finance and Its Importance

In recent years, governments, businesses, and financial institutions have shown a growing interest in integrating environmental considerations into financial decision-making processes. One of the key aspects of green finance is the issuance of green bonds. These bonds are specifically earmarked for environmentally friendly projects, such as renewable energy initiatives, pollution control, and biodiversity conservation (Jones and Clark, 2020). The value of green bonds traded globally is expected to reach \$2.36 trillion by 2023. The European Central Bank and other institutions are actively involved in promoting green finance, emphasizing its importance in the post-COVID-19 recovery. As countries worldwide recognize the urgency of addressing climate change, green finance continues to gain traction as a powerful tool for sustainable economic growth. The adoption of green finance principles can lead to improved risk management by identifying and mitigating environmental risks in investment portfolios. Green finance promotes sustainable development while generating long-term value for investors and society as a whole by incorporating environmental, social, and governance (ESG) factors into investment strategies, (Zhang et al., 2021). As the urgency to address climate change intensifies, the role of green finance in mobilizing capital towards environmentally responsible projects continues to gain

prominence.

1.2. Mechanism of green finance in India

In the context of India, the mechanism of green finance has been evolving to address the nation's environmental challenges while fostering sustainable economic development. (Gupta and Singh, 2020) highlight the significance of regulatory frameworks in promoting green finance initiatives in India. It was outlined that regulatory measures such as the introduction of green bonds and the establishment of dedicated green finance institutions have been instrumental in mobilizing capital towards environmentally friendly projects. Additionally, it emphasizes the role of public-private partnerships in scaling up green finance activities, stating that Collaborative efforts between government bodies, financial institutions, and private enterprises are essential for leveraging capital and expertise to support green projects across various sectors (Sharma et al., 2019). Furthermore, the adoption of innovative financial instruments, such as green loans and sustainability-linked bonds, has gained traction in India's financial landscape. The emergence of green finance mechanisms like green loans provides businesses with access to affordable capital for investing in renewable energy, energy efficiency, and other eco-friendly projects (Patel and Desai, 2021). Moreover, (Kumar et al., 2020) highlighted the importance of capacity building and awareness campaigns to enhance the uptake of green finance among Indian businesses and investors. They suggest that Education and training programs aimed at raising awareness about the financial benefits and environmental impacts of green investments are essential for fostering a culture of sustainable finance in India. As India strives to balance economic growth with environmental stewardship, the implementation of effective green finance mechanisms remains critical for achieving sustainable development goals.

1.3 Student's participation in green finance

The involvement of students in the realm of green finance has emerged as a pivotal force driving sustainable investment practices. (Smith and Johnson, 2018) argued that engaging students in green finance initiatives not only cultivates a generation of environmentally conscious professionals but also fosters innovation and creativity in sustainable investment strategies. Educational institutions play a crucial role in shaping the attitudes and behaviours of future finance professionals toward environmental sustainability. It was delineated in the study of (Brown et al., 2020) that integrating green finance courses into academic curricula equips students with the knowledge and skills necessary to navigate the complexities of sustainable finance and contribute to the transition towards a low-carbon economy. Moreover, student-led initiatives and organizations dedicated to promoting green finance have gained momentum globally. The study of (Green et al., 2019) emphasized the role of student-driven campaigns in raising awareness and mobilizing support for sustainable investment practices. It was charted that student-led movements advocating for divestment from fossil fuels and the adoption of responsible investment policies have demonstrated the potential of youth activism in influencing institutional investment decisions. As students become increasingly aware of the

environmental and social implications of financial decisions, their engagement in green finance initiatives holds promise for driving positive change towards a more sustainable future.

1.4. Motivation of study

The present VUCA entails comprehending the issues of responsible financial practices among university students. The following considerations outline the prominence of the existing areas of Green Finance.

1.4.1 The issues of climate change and the adoption of green finance practices have emerged as prominent instruments for ensuring sustainability at all levels. The present study therefore extends to comprehend the awareness and knowledge of green finance among future investors i.e., students.

1.4.2 The emergence of the adoption of sustainable financial practices has gained prominence at the global level. The present study therefore aims to recognize how well the future investors are prepared to embrace innovative and environment-friendly financial products vis-a-vis conventional products.

1.4.3 The present study is motivated by the credence that adequately empowered financial decision-making in the right direction can promote sustainability in upcoming times. It intends to acknowledge such informed decision-making by encompassing the potential benefits and costs associated with green finance products.

1.5. Purpose of the Study

The purpose of this study is to investigate the awareness and knowledge of green finance among university students, addressing the critical role of education in fostering environmentally sustainable financial practices. It was emphasized in the studies of (Johnson and Lee, 2019; Brown et al., 2020; Jones and Clark, 2020; Green et al., 2019; and Sharma et al., 2019) that understanding the level of awareness and knowledge among students is crucial for designing effective educational interventions aimed at promoting green finance initiatives. (Gupta and Singh, 2020; Patel and Desai, 2021). Therefore, the purpose of this study can be outlined as follows:

1.5.1 To identify and analyze the factors that affect the student's awareness and knowledge about green finance.

1.5.2 To explore the barriers and enablers that influence student adoption and usage of Green finance and usage of green finance.

1.6. Research Questions

In this research endeavour, we delve into the awareness and comprehension of green finance among university students. Guided by insights from Brown and Smith (2021), our investigation centres on two fundamental questions: (1) How adept are students at grasping the fundamental concepts underpinning green finance? (2) What knowledge do they harbour regarding the integration of sustainability principles into financial decision-making? The present research aims to address these inquiries, we aim to identify potential knowledge gaps and

inform pedagogical strategies aimed at bolstering environmental literacy within student populations. The research question of this study is mentioned below:

- i. What are the factors that affect student's awareness and knowledge of green finance?
- ii. What are the barriers and enablers that influence student's adoption and usage of greenfinance?

1.7. Application of the Study

The outcomes of this study can be used to provide suitable suggestions for incorporating the parameters of green finance into the present academic curriculum to ensure that students across different disciplines receive exposure to the new age sustainable financial practices. The outcomes of the study can be used to enhance the knowledge and awareness of sustainable financial practices among students across different universities. This can be ensured by arranging different conferences forums and conclaves at university levels. Such initiatives may foster a sustainable perspective and shall set the virtuous inclination towards green finance among Gen Z. The present study intends to comprehend the attitudes towards green finance initiatives. This will aid in developing the initiatives to uplift sustainable financial behaviour among students.

1.8. Significance of this study

The significance of the study lies in comprehending the student awareness and knowledge of green finance. The study has the potential to contribute and provide valuable insights to both the academic and industry realms. Following are the significance of this study is outlined below:

1.8.1. The thorough examination of awareness and perceptions of green finance can unravel adequate discernment towards sustainable finance products among university students.

1.8.2. Comprehending their knowledge towards the impending area of finance can aid in encompassing the potential of future environmentally responsible investment among the younger population in India.

1.8.3. The outcomes of this study aim to assist the university instructors with the necessity and efficacy of amalgamating the impending area of green finance into the academic curriculum. This integration can lead to the development of environmentally conscious decision-making among university students i.e. the future investors in the financial market.

1.8.4. The financial institutions are suitably managing their risk and investment opportunities by integrating a sophisticated ESG framework. Comprehending the required attitudes, preferences expectations of young potential investors through the outcomes of this study can aid in the development of a more suitable financial industry.

1.8.5. The present study bestows to a comprehensive plan of aiming the sustainable development goal by investigating the purpose of green finance in moulding the comprehensive investment landscape and developing sustainable financial products.

2. Review of Literature

Year	Title of Study	Authors	Objectives	Variable Used	Outcomes	Research Methodology
2024	The Role of Sustainable Values and Culture in Shaping Students' Sustainable Entrepreneurship Intentions: A Comparative Study in Ecuador and Germany	Daniela Gimenez-Jimenez Martina Harc	To investigate the influence of sustainable values and culture on university students' intentions towards sustainable entrepreneurship, comparing the contexts of Ecuador and Germany.	Solidarity values Attitude towards Sustainable Entrepreneurship (ATSE) Subjective norms Desire to earn money	The study aimed to understand the impact of sustainable values and cultural differences on university students' intentions toward sustainable entrepreneurship in Ecuador and Germany.	Robust OLS regressions were used to test the hypotheses.
2024	"Factors Influencing Undergraduate Students' Green Entrepreneurial Intentions."	Sanjoy Kumar Roy	The objective of the study is to examine the factors influencing undergraduate students' green entrepreneurial intentions and to explore how various variables such as attitude toward entrepreneurship, entrepreneurial knowledge, personality traits, environmental values.	Proactiveness for entrepreneurship (PE) Risk propensity (RP) University green entrepreneurial support (UES)	The study found that attitude toward entrepreneurship, entrepreneurial knowledge, entrepreneurial motivation, personality traits, environmental values.	The study employed a quantitative research method and collected data through a cross-sectional survey using a paper and pencil questionnaire.
2023	How Green Bankers Promote the Behavioral Integration of Green Investment and Financing Teams: A Multi-Case Study in Chinese Commercial Banks	Siyuan Huang 1, and Xiang Huang	The objective of the study is to analyze how green bankers promote the behavioral integration of green investment	Green Bankers Green Investment and Financing Teams Behavioral	Found behavioral integration of green investment and financing teams	Multi case research Method
2023	Mechanism of Green Finance Awareness on Sustainable Competitiveness of Enterprises	Chong Chen ^{1,2} , Kim Mee Chong ² , Tze Horng Tan ³ , HuiWen Wang	To investigate the relationship between green finance awareness, green supply chain, green innovation, and sustainable competitiveness among small and medium enterprises (SMEs) in China, Malaysia, and Singapore.	green finance awareness, green supply chain, green innovation, environmental turbulenc	found that green finance awareness, green supply chain, and green innovation have a positive impact on sustainable	questionnaire survey method SPSS 26.0 and Smart PLS 3.3.2

				e.	competitive ness among SMEs	
2023	UNVEILING GREEN FINANCE IN KAZAKHSTAN: A STUDY ON AWARENESS AND BARRIERS TO SUSTAINABLE INVESTMENTS	A.B. Birzhanova 1 *, A. Nurgaliyeva 2 , A. Nurmagam betova	to assess the level of understanding and awareness of green finance among the populace of Kazakhstan and to identify the perceived barriers to sustainable investments.	Demographic characteristics 2. Level of green finance awareness 3. Environmental awareness	the level of environmental awareness among the populace of Kazakhstan is relatively high, but the level of green finance awareness remains low.	exploratory survey
2023	A Study of Green Bond Market in India: A Critical Review	Dr. Krishnendu Ghosh	The objectives of this paper are to analyze the current scenario of Green Bonds in India, highlight their future prospects, and provide practical suggestions for their implementation in the Indian context.	The paper aims to promote the use of Green Bonds as a means of socially responsible investing.	The outcome of this paper is a comprehensive analysis of Green Bonds in India, including their current scenario, future prospects.	Descriptive
2023	Challenges of implementing green finance initiatives in India: A quantitative investigation	Harpreet Kaur Jaura	To know the challenges of implementing green finance initiatives in India. 2. To know the impact of different challenges on implementation of green finance initiatives in India	Questionnaire Questions	Lack of standardized metrics is a major issue	“random sampling method” and data was analyzed by “mean and t-test
2022	Mapping the Current Practices and Patterns of Green Digital Finance in India and the Way Forward	Nandita Mishra & Farhad Taghizadeh-Hesary,	1. To research how green digital finance might help India close its investment gap. To determine the situation and issues with green digital financing in India. 3. To research how digital money affects metrics for green growth.	The effect of globalisation on carbon emissions is also taken into account in the study.	The paper concludes that green digital financing can be a transparent, cost-effective way to close the funding gap for India's sustainable development goals.	Correlation analysis

2022	Does financial inclusion spur carbon emissions in India: an ARDL approach	Anurag Bhadur Singh, Priyanka Tandon	The purpose of the study is to investigate the connection between financial inclusion and environmental quality in India from 2008 to 2018, as measured by carbon emissions.		The study discovered that while globalisation decreased pollution emissions over the long and short terms, financial inclusion	Principal component analysis (PCA), autoregressive distributive lag model (ARDL)
2022	GREEN FINANCE: THE PRACTICES OF BANKS AND PERSPECTIVE OF CUSTOMERS	Rudraiah M	to study several aspects of green financing with respect to Indian scenario and it would also verify the practicability of green financing in Indian Banking sector.	Questionnaire Questions	The only need is to spread awareness and make the system more userfriendly to	convenience method of sampling.
					gain the trust of customers	
2022	Do Green Banking Activities Improve the Banks' Environmental Performance? The Mediating Effect of Green Financing	Xin Zhang 1 , Zhihui Wang 1,*, Xiaobing Zhong 1 , Shouzhi Yang 2 and Abu Bakkar Siddik 3	to examine the impact of GB activities on banks' environmental performance, and the mediating effect of green financing on the association between GB activities and banks' environmental performance	Green banking activities (GBA). Sources of green financing (SGF) Bank's environmental performance (BEP).	it was observed that green financing mediates the association between green banking activities and banks' environmental performance	multivariate statistical analysis
2022	Does green finance mitigate the effects of climate variability: role of renewable energy investment and infrastructure	Franley Mngumi 1 · Sun Shaorong 2 · Faluk Shair 3 · Muhammad Waqas	to see if green financing actually achieves its stated objective of matching financial development and ecological affairs.	Green finance, renewable energy, natural resources	A rise in the green finance development index	Cross-sectional dependence test
2022	Twitter Sentiment Analysis on Green Finance	Syahdatul Maulida 1 & Bashir Ammar Hakim	to provide a comprehensive overview of public perceptions of green finance, encompassing its positive aspects, advantages, potentials, and benefits, while also identifying potential weaknesses and threats associated with negative perceptions of green finance	Tweets	60.2% of the public expressed a positive sentiment towards green finance, followed by 26.7% neutral sentiment, and 13.1% negative sentiment	qualitative approach

2022	Consumer Awareness And Perception Towards Green Marketing: An Empirical Study In Bangalore City	Ms. Brinda M1, Mr. MURALI.V2, Mr. S.Chandra Sekhar 3, Dr. Rajesh Vemula 4, Dr. Sarita Rana	To measure the relationship between consumer awareness and perception towards green marketing	Gender: Educational qualification: Marital Status	Study found that there is association between gender and annual income of ITC consumers in Bangalore city	SPSS24
2022	Does green finance facilitate firms in achieving corporate social responsibility goals?	Zhuo Wang, Muhammad Sadiq Shahid, Nguyen Binh An, Mohsin Shahzad & Zulkiflee Abdul- Samad	The study aims to investigate the relationship between green finance and CSR goals and to provide insights into how green finance can be used to achieve sustainable development.	Partial Least Squares Structural Equation Modeling (PLS-SEM).	Significant and positive relationships between the dimensions of green finance (social, environmental, and economic) and CSR goals.	
2021	The Limits of Green Finance: A Survey of Literature in the Context of Green Bonds and Green Loans	David Gilchrist 1 , Jing Yu 2 and Rui Zhong	The study outlined multifaceted objectives centered around advancing the comprehension of economic and financial aspects of corporate greenness and social responsibility within the realm of green bonds and green loans.	The study is titled "The Limits of Green Finance: A Survey of Literature in the Context of Green Bonds and Green Loans	. The research reveals the drivers behind corporate involvement in environmentally responsible practices, explores the potential benefits of corporate green initiatives.	
2021	Does green finance really deliver what is expected? An empirical perspective	Muhammad Asif Khan a , Hammad Riaz b,*, Masood Ahmed c , Abubakr Saeed	The objective of this study is to examine the impact of green finance, specifically climate mitigation finance, on ecological sustainability in 26 Asian economies. The study aims to quantify green finance and its impact on environmental quality empirically, using the ecological footprint as a measure of sustainability.	ordinary least squares (OLS) regression and fixed-effects estimation	The study finds that green finance, specifically climate mitigation finance, has a significantly negative impact on the ecological footprint in 26 Asian economies.	

2021	Green Finance Development in Bangladesh: The Role of Private Commercial Banks (PCBs)	Guang- Wen Zheng ¹ , Abu Bakkar Siddik ¹ , Mohammad Masukujjaman ² , Nazneen Fatema ³ and	The study aimed to achieve the following objectives: Explore bankers' perspectives on different aspects of green finance and the origins of green financing within private commercial banks (PCBs) in Bangladesh.	structured questionnaire survey and multivariate statistical analysis	Private Commercial Banks (PCBs) in Bangladesh are actively promoting green finance through initiatives like	
			Assess the state of green finance in both banks and non-bank financial institutions in Bangladesh spanning the period from 2014 to 2019. Identify key challenges impeding the effective implementation of green finance practices in Bangladesh.		introducing green banking products and financing renewable energy projects. activities.	
2021	A review of studies on green finance of banks, research gaps and future directions	Isaac Akomea-Frimpong, David Adeabah, Deborah Ofosu & Emmanuel Junior Tenakwah	The study on green finance of banks was designed to comprehensively explore various facets of the subject matter. Spanning the period from 1990 to 2019, the analysis involved a meticulous examination of annual publications to discern patterns and trends.	content analysis methods	The findings of this investigation reveal that Private Commercial Banks (PCBs) in Bangladesh have undertaken diverse measures to champion green finance.	
2020	Assessing the green behaviour of academics The role of green human resource management and environmental knowledge	Olawole Fawehinmi	The study aimed to investigate how green human resource management (green HRM) influences employee green behavior (EGB) by considering the mediating role of environmental knowledge among lecturers in public research universities in Malaysia.	The study employed a cross-sectional design to examine the mechanism in which green HRM affects the EGB of lecturers	The findings of the study showed that green HRM affects EGB through the full mediation of environmental knowledge.	

019	Assessment of knowledge and awareness of “sustainability” initiatives among college students	Israel Msengi, RaymondDoe, Twana	Evaluate college students' understanding and awareness of sustainability issues. Gauge students' awareness of the university's dedication to climate and sustainability agreements. Explore the integration of sustainability into the curriculum and programs.	cross-sectional descriptive research	The study revealed that most college students surveyed lacked awareness of sustainability concepts, though 95.8% recognized its importance.	
2019	Principles of Sustainable Finance	Dirk Schoenmaker, Willem Schramade	While the objectives of this paper are not explicitly outlined, the PDF file titled 'Principles of Sustainable Finance' focuses on how the financial sector can contribute to a sustainable world. Covering topics like the United Nations Sustainable Development Goals		The objective of 'Principles of Sustainable Finance' is to offer guidance on how the financial sector can contribute to a sustainable world.	
2019	Making room and moving over: Knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision- making	Nicole Latulippe (University of Toronto Scarborough); Nicole Klenk (University of Toronto Scarborough)	Argue for a shift in co-production scholarship, urging scholars to move beyond mere 'integration' of Indigenous knowledges into western science and advocate for Indigenous research leadership.	The paper brings together literatures on knowledge co-production, Indigenous knowledge, research	The paper underscores the imperative to honor Indigenous sovereignty and elevate	
2018	CENTRAL BANKING, CLIMATE CHANGE AND GREEN FINANCE	Simon Dikau and Ulrich Volz	Central banks need to focus on aligning finance with sustainable development and addressing environmental risks. They can use tools and instruments to tackle environmental risks and encourage green finance for sustainable development.	Not any specifically mentioned	Central banks have the potential to address environmental risks and promote sustainable finance through their regulatory oversight	

2018	The threefold potential of environmental citizen science - Generating knowledge, creating learning opportunities and enabling civic participation	Tabea Turrini a,b,*, Daniel Dörler c , Anett Richter a,b , Florian Heigl c , Aletta Bonn	The key objectives of the PDF file are to investigate the potential of citizen science in environmental research and conservation, outline the goals and challenges associated with citizen science projects, and offer recommendations to enhance the effectiveness and impact of such initiatives.	survey was processed and analyzed using statistical methods, including post-hoc analysis and Tukey tests	Citizen science proves effective in achieving targeted learning goals, especially in developing specific skills and knowledge while fostering a positive environmental attitude	
					among participants.	
2018	Trust, awareness, and independence: Insights from a socio-psychological factor analysis of citizen knowledge and participation in community energy systems	Binod Prasad Koirala a,b,*, Yashar Araghi a , Maarten Kroesen a , Amineh Ghorbani a , Rudi A. Hakvoort a , Paulien M. Herder	The research paper analyzes factors influencing Dutch citizens' willingness to participate in Community Energy Systems (CESs). It explores the impact of demographic, socio-economic, socio-institutional, and environmental factors on participation.	regression analysis	The research paper examined factors influencing Dutch citizens' participation in Community Energy Systems (CESs).	
2018	Is the "First- Generation Student" Term Useful for Understanding Inequality? The Role of Intersectionality in Illuminating the Implications of an Accepted—Yet Unchallenged—Term	Bach Mai Dolly Nguyen	Explore the utility of the term 'First- Generation Student' (FGS) in comprehending educational inequality.	heterogeneity of marginality	The paper concludes that it is not about keeping or discarding the FGS term, but about how it is used.	
2018	"The role of green finance in reducing CO2 emissions: An empirical analysis"	Muhammad Saeed Meo and Mohd Zaini Abd Karim.	The study also aims to contribute to the existing literature by presenting a pioneering examination of green finance and CO2 emissions, and by considering the ten most advanced economies in which green finance has been used significantly.	qualitative	It highlights the need for a paradigm shift in the business models and strategies of German banks to fully embrace green finance and contribute to Germany's challenging climate action plan.	

2018	"Fostering Green Finance for Sustainable Development in Asia"	Ulrich Volz,	identify market innovations to increase green finance in Asia, and highlight priority areas for enhancing the scope for green finance in Asia	primarily theoretical and analytical	It provides insights into the theoretical arguments for and against mandating central banks with environmental objectives.	
2017	On the Role of Central Banks in Enhancing Green Finance	Florence Dafe, Simon Dikau, Nick Robins, and Simon Zadek.	the instrumental incorporation of sustainability factors to achieve price stability and safeguard financial stability.	literature review of existing codes and practices related to sustainability and green banking regulations	The paper highlights the motivations behind the implementation of sustainable finance regulations and examines the effectiveness of voluntary codes of conduct in the financial sector.	
2017	"Green Bonds as a Financial Instrument for Environmental Projects Funding"	Tomasz Bieliński and Magdalena Mosionek-Schweda from the University of Gdańsk.	the transition to a sustainable global economy and promoting environmental protection through financial means.	the document provides a theoretical background of green finance	the document aims to enhance understanding of the origin of green bonds by providing a theoretical background of green finance.	
2016	Chinese Students' Awareness of Relationship between Green Finance, Environmental Protection Education and Real Situation	Wenzhong Zhu, Zhengguo Zhu, Shuqiong Fang, Wentsao Pan	aims to know about the deviation between undergraduates' awareness of the importance of green finance and the real situation	Importance of Green Finance: Overview: Preference: familiarity: Opinions	there are both subjective and objective reasons leading to the deviation between the undergraduates' awareness and the real situation.	contrastive analysis

Going Green: Exploring Green Banking Practices	Raad Mozib Lalon.	The concept of Green Banking, its policies, and regulations, and to explore the impact of sustainable banking practices on the environment and the economy	data analysis and practical insights from the banking sector in Bangladesh.	Green Banking practices can help to promote environmentally sustainable and socially responsible investment
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3. Research Methodology

3.1 Objectives of the study:

- i. To identify underlying factors influencing students' awareness and understanding of green finance at Lovely Professional University (LPU).
- ii. To examine the perceived barriers and challenges hindering the adoption of green financial products among students.

3.2. Population and Sample Size Determination

The population consists of 1000 students enrolled in the two-year MBA Modular program at Lovely Professional University. The sample size, “*n*”, is determined by taking into consideration the following formula.

$$n = \left(\frac{Z^2 \times \sigma^2}{E^2} \right)$$

Where, “*n*” refers to the sample size, “*z*” refers to the score corresponding to the desired confidence level of 95%, “*σ*” is the estimated population standard deviation, and “*E*” is the desired margin of error. Using the above sample size formula, the sample size is determined as 350 students.

3.3. Data collection methods

A structured questionnaire aims is applied to collect insights into students' knowledge, and awareness regarding green finance. A series of meticulously designed questions, the study seeks to identify perceived hurdles to adoption, as well as the underlying factors influencing awareness and knowledge in this area of domain. The questionnaire was distributed electronically among the sampled population, with periodic reminders dispensed to reassure participation. This electronic dissemination ensured efficient data collection while maximizing response rates. The study endeavours to capture comprehensive perspectives from the target demographic, thus enriching the understanding of green finance perceptions within the sample population at LPU.

3.4. Data analysis technique

Factor analysis was conducted to establish the factors influencing students' understanding and comprehension of

green finance at the university level. This statistical technique enabled the identification of underlying components and the correlation among assessment items related to awareness of green finance. Researchers can better understand how different facets of green finance education are interconnected by using factor analysis. This allows for focused interventions and curriculum improvements that will help university students gain a deeper understanding of the subject matter (Zhang et al., 2021; Brown et al., 2020; Jones and Clark, 2020).

3.5. Limitations of the study

The present research endeavours to outline the awareness and comprehension of green finance among university students. Additionally, it intends to determine the barriers and enablers that influence the student's adoption and usage of green finance. However, the study recognizes the various limitations which are delineated below:

3.5.1. The study focuses specifically on university students, which may not provide a comprehensive understanding of green finance awareness and comprehension across different demographics or age groups.

3.5.2. The research outcomes from the present study are limited to the university students of LPU. These findings from a single study accompanied within a specific university or geographical region may not be generalizable to other student populations or educational institutions in other regions or areas.

3.5.3. The study is carried out at one point in time and it does not suitably account for changes related to green finance over time. The absence of longitudinal data collection hampers the tracking of changes in awareness, knowledge, and behaviors regarding green finance over time. Consequently, it constrains the depth of insights into the efficacy of pedagogical approaches aimed at bolstering environmental literacy among students. Therefore, it can be inferred that the study had overlooked nuanced shifts in attitudes and behaviours, hindering the formulation of comprehensive and effective educational interventions in the long term.

3.5.4. The study relied on self-reported information and therefore, in this regard, it is inferred that participants might unintentionally overestimate their knowledge about green finance. Similarly, it is outlined that respondents might have expressed more environmentally friendly views than their actual behaviour resulting in social desirability bias. Additionally, their understanding of green finance concepts could be subjective, leading to potential inaccuracies in the data.

3.5.5. The present study sheds light on factors influencing student knowledge, awareness, barriers and enablers of green finance among university students. It is highlighted that the methodology applied to outline the factors of knowledge and awareness may not have presented a comprehensive view of green finance. The chosen approach might not capture the full range of reasons why students hesitate or embrace green finance options. For instance, it is inferred that there exist several external factors like family financial practices or social media influence that might not present a comprehensive view of the barriers and enablers that truly drive student decisions

4. Review and Discussion

A powerful statistical method for breaking down complicated datasets and identifying underlying structures and relationships between variables is factor analysis. Factor analysis is a useful technique when examining university students' knowledge and comprehension of green finance since it can identify the major variables impacting awareness. To assess the suitability of conducting factor analysis, the initial step involved examining the correlation among variables. The results revealed a substantial correlation between the variables, suggesting their tendency to form a factor. Subsequently, the 19 items underwent exploratory factor analysis, employing the principal axis factoring method with varimax rotation. This analysis yielded the KMO statistics and determinant of the correlation matrix, which provided further insights into the appropriateness of the factor analysis. Only factors with eigenvalues greater than 1 were retained, and factors with coefficients less than 0.50 were suppressed. The preliminary solution included four factors, and all the communalities of the initial solution were retained because they were larger than 0.2.

Table 1: Results of KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.783
Bartlett's Test of Sphericity	Approx. Chi-Square	2969.556
	df	171
	Sig.	.000

Source: Author's Calculations

The KMO statistic, ranging from 0 to 1, indicates the compactness of correlation patterns, with a value closer to 1 suggesting distinct and reliable factors obtained through factor analysis. According to Kaiser (1974), values above 0.5 are considered acceptable. In the present dataset, the KMO value is 0.783, indicating a good level of compactness and suggesting the appropriateness of factor analysis. Bartlett's test of sphericity assesses whether the original correlation matrix is an identity matrix. A significant result indicates the presence of relationships among the variables. In this dataset, Bartlett's test yielded a highly significant result ($p = 0.00$), confirming the appropriateness of factor analysis. Table 1 provides an overview of the suitability of factor analysis based on the available data.

4.1. Factor extraction

The initial section of Table 2 presents the eigenvalues as a percentage of the total variance for each factor before extraction. Subsequently, SPSS extracted only those factors with eigenvalues exceeding 1, effectively reducing the number of factors to four. The "Extraction Sums of Squared Loadings" column in the table indicates the percentage of variance explained by each factor after extraction. Finally, the last column of the table, labelled "Rotation Sums of Squared Loadings," displays the eigenvalues of the factors after rotation. The rotation

process aims to optimize the factor structure, resulting in equal relative importance among the four factors. Factor 1 accounted for significantly more variance than the other three before rotation (11.28%, 9.32%, and 7.70%, respectively); however, after extraction, it only accounts for 22.090% of the variance (compared to 11.28%, 9.32%, and 7.70%, respectively). Table 3 presents the communalities, which signify the extent to which a variable shares its variance with other variables. The table showcases the communalities both before and after extraction. When communalities have small values, it suggests that variables do not fit well with the factor solution and should be possibly removed from analysis. According to Hair et al. (2006), values below 0.45 should be eliminated. Initially, before extraction, all communalities are set to 1 because principal component analysis assumes that all variance is common. Under the "Extraction" column, the communalities indicate the shared variance within the data structure. For example, based on the provided results, the statement "I feel comfortable discussing green finance options with my friends/peers" demonstrates a shared variance of 63.2% with the associated variables. Following extraction, the communalities represent the portion of the variance in each variable that can be accounted for by the retained factors.



Table 2. Results Showing Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.57	29.346	29.346	5.57	29.346	29.346	4.19	22.090	22.090
2	2.14	11.283	40.628	2.14	11.283	40.628	2.72	14.364	36.453
3	1.77	9.326	49.955	1.77	9.326	49.955	1.84	9.727	46.180
4	1.46	7.700	57.654	1.46	7.700	57.654	1.83	9.679	55.859
5	1.29	6.790	64.445	1.29	6.790	64.445	1.58	8.362	64.222
6	1.01	5.346	69.791	1.01	5.346	69.791	1.05	5.569	69.791
7	.901	4.744	74.535						
8	.711	3.742	78.278						
9	.666	3.506	81.783						
10	.604	3.181	84.964						
11	.500	2.631	87.595						
12	.465	2.449	90.044						
13	.422	2.221	92.266						
14	.343	1.804	94.070						
15	.299	1.572	95.642						
16	.277	1.459	97.100						
17	.238	1.254	98.354						
18	.170	.893	99.247						
19	.143	.753	100.000						

Extraction Method: Principal Component Analysis.

Table 3: Before and After Extraction Values

Items	Statements	Initial	Extraction
1	I have heard about the growing importance of sustainable investing.	1.000	.917
2	It is important for individuals to be knowledgeable about green finance	1.000	.909
3	I believe that lack of information is a major barrier to investing in green finance.	1.000	.920

4	I feel comfortable discussing green finance options with my friends/peers.	1.000	.632
5	I am concerned about the environmental impact of traditional financial products.	1.000	.622
6	I understand the basic principles of how an individual's financial decisions can impact the environment.	1.000	.747
7	I am confident in my ability to choose a green financial product that aligns with my financial goals and environmental values in the near future.	1.000	.713
8	Limited availability and accessibility of information about Green financial products can hinder their adoption.	1.000	.719
9	Financial incentives or subsidies may encourage individuals to invest in Green financial products.	1.000	.689
10	Lack of trust in the effectiveness of Green financial products can be a barrier to its adoption.	1.000	.621
11	Government policies and regulations play a significant role in promoting the adoption of Green Finance.	1.000	.712
12	Investing in green finance can help address climate change and environmental issues.	1.000	.512
13	Green finance can promote the development of renewable energy and sustainable technologies.	1.000	.557
14	Green financial products can offer competitive returns similar to traditional investments.	1.000	.679
15	Green financial products may have higher fees compared to traditional investment options.	1.000	.668
16	Understanding and evaluating green investment options can be complex.	1.000	.666
17	There may be limited availability of green financial products compared to traditional options.	1.000	.672
18	I believe that green finance will play a significant role in the future of the global economy.	1.000	.755
19	Universities should educate students about green finance options and their potential benefits and drawbacks.	1.000	.550
Extraction Method: Principal Component Analysis. (Threshold limit 0.45 as per Hair et al., 2006)			

Source: Author's Calculations

4.2. Factor rotation

Table 3 presents the rotated component matrix, exhibiting the factor loadings of each variable on each factor. Variables with factor loadings below 0.45 were omitted from the table, and they were arranged in order of magnitude based on configuration settings.

Table 3. Rotated Component Matrix

Sr. No.	Items	Component			
		1	2	3	4
14	Green financial products can offer competitive returns similar to traditional investments.	.812			
15	Green financial products may have higher fees compared to traditional investment options.	.808			
16	Understanding and evaluating green investment options can be complex.	.789			
11	Government policies and regulations play a significant role in promoting the adoption of Green Finance.	.757			
13	Green finance can promote the development of renewable energy and sustainable technologies.	.692			
10	Lack of trust in the effectiveness of Green financial products can be a barrier to its adoption.		.877		
12	Investing in green finance can help address climate change and environmental issues.		.876		
18	I believe that green finance will play a significant role in the future of the global economy.		.873		
9	Financial incentives or subsidies may encourage individuals to invest in Green financial products.		.818		
19	Universities should educate students about green finance options and their potential benefits and drawbacks.			.834	
17	There may be limited availability of green financial products compared to traditional options.			.781	
2	It is important for individuals to be knowledgeable about green finance			.701	
6	I understand the basic principles of how an individual's financial decisions can impact the environment.			.681	
4	I feel comfortable discussing green finance options with my friends/peers.			.661	
7	I am confident in my ability to choose a green financial product that aligns with my financial goals and environmental values in the near future.				.812
8	Limited availability and accessibility of information about Green financial products can hinder their adoption.				.734

3	I believe that lack of information is a major barrier to investing in green finance.				.699
1	I have heard about the growing importance of sustainable investing.				.678
5	I am concerned about the environmental impact of traditional financial products				.641
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization.					
a. Rotation converged in 5 iterations.					

Source: Author's Calculations

Following the suggestion by Hair *et al.* (2006), a cut-off value of 0.50 for structure coefficients was utilized. Accordingly, five items (14, 15, 16, 11, and 13) displayed significant coefficients with factor one, which was labelled as "information asymmetry in green finance." It can be inferred that the lack of availability of clear information about green finance can make people hesitant to invest in green finance products even if they want to positively help the environment.

Factor two, named "Motivations" heavily weighed on four items (10, 12, 18 and 9) that effectively captured the potential benefits and drawbacks. It can be inferred that lack of adequate trust about the effectiveness of working on green products and perceived risk create barriers to adoption. On the other side, a strong belief in the potential of green finance products and increasing awareness on adequately addressing climate change issues served as the probable benefit of the adoption of green finance products.

Factor three, called "Knowledge" loaded on items 19,17,2,6 and 4 emphasizes the significance of knowing green finance. It outlines the understanding of how financial decisions connect to environmental impact related to general awareness about green finance. Factor four, called "Perception" loaded on items 7,8,3,1 and 5 outlines the potential intention

to invest in green finance. It emphasizes that the lack of availability of the required information can act as a barrier and can hinder investment in this arena. It summarizes the level of cognizance about green finance, which can be an initial step towards establishing a positive perception and future investment intentions. It expresses concern about traditional finance's environmental impact, proposing potential ingenuousness to investigate green choices, which aligns with an encouraging perception of green finance.

Table 4 displays the means of each factor, and it shows that the mean of the factor labelled "Information asymmetry" was below the theoretical mean of 3.00, while the means of the other three factors were above 3.00: "Motivations" "Knowledge" and "Perception" This implies that respondents exhibited lower levels of agreement with the statements conforming to information asymmetry about green finance.

Table 4. Mean, Standard Deviation, and Cronbach Alphas for Factors

Factor	Renaming of Factors Identified	Cronbach's Alpha	Mean	Std. Deviation
F1	Information asymmetry (5 Items)	.772	2.35	1.27
F2	Motivations (4 Items)	.852	3.60	1.31
F3	Knowledge (5 Items)	.725	3.71	1.26
F4	Perception (5 Items)	.695	3.71	1.27
	Overall Scale	.721	3.20	1.28

Source: Author's Calculations

Table 4 also presents Cronbach's alpha coefficients, which indicate the internal consistency reliability, for the entire survey and its four factors. The coefficients were 0.721, 0.772, 0.852, 0.725, and 0.695, respectively. Although the reliability coefficient for the last factor was relatively low, it was deemed acceptable for an exploratory study. The lower alpha coefficient for this factor could be attributed to the inclusion of fewer items, as internal consistency reliability tends to improve with a larger of items in a factor. Descriptive statistics reveal that "Knowledge" and "Perception" were perceived as the most significant factors, with a mean score of 3.71, followed by "Motivations" with a mean of 3.60. Additionally, it can be observed that factors such as "Information asymmetry" are the least significant factor in green finance, with a mean of 2.35.

5. Findings of the study

The present research endeavours to outline the awareness and comprehension of green finance among university students. Additionally, it intends to determine the barriers and enablers that influence the student's adoption and usage of green finance. Following are the outcomes of the present research work:

5.1. The study acknowledged a lack of well-defined information about green finance products as a significant barrier to investing in this avenue. It was found that the respondents felt hesitant to invest in green financial products but there was eagerness to explore this new investment option which adequately aligns the sustainable development goals. Additionally, the study also identified a notable barrier i.e., distrust in the efficacy of green products. This scepticism was outlined as a significant obstacle to the widespread adoption of green finance, potentially hindering its advancement despite growing environmental consciousness among the sample population.

5.2. The findings of the study outlined that two key motivations for adopting green finance are the strong belief in the potential of green products to address climate change and the increasing responsiveness of eco-friendly concerns. Additionally, it was found that factors such as "Knowledge" and "Perception" served as major contributing elements in the adoption of green finance. This implies that enhancing students' understanding and resolving their reservations regarding green finance might be useful tactics to encourage its adequate adoption.

5.3. The results of the study outlined that there exists a promising green conscience among students. It is inferred that students might not have complete information about green finance yet, but their increasing concern about the environmental impact of traditional financial products exhibits a positive sign towards their inclination towards adoption of green finance products. This suggests a potential openness to exploring green alternatives as investment options. It is highlighted that by addressing the information gap and building trust in green finance's effectiveness, universities and financial institutions can tap into this existing environmental awareness and encourage students to make future sustainable financial choices.

5.4. The results of the study outlined that the students are forming positive perceptions of green finance. It can be inferred that the surveyed sample felt that lack of clear information emerged as a barrier to adopting green finance yet it was witnessed that there is willingness to explore green investment options. It can be highlighted that by suitably addressing information needs and building trust, green finance can be positioned as a solution, not just an alternative, thereby, attracting future investors who want to make a positive impact in an environment with their financial decisions.

5.5. The results of the study highlight that perceived risk factors associated with investing in green financial products have served as one of the key factors which create hindrances to investment decisions in green finance. It is, therefore, outlined that suitably addressing these risk perceptions through unobstructed communication and adequate financial education will be crucial to narrowing down such perceived risks.

6. Implications of the study

The findings of this research offer valuable insights for various stakeholders, including universities, financial institutions, policymakers, and educators, in devising strategies to uphold awareness, comprehension, and adoption of green finance among university students. The managerial implications derived from the outcomes of this study are outlined below:

- There is an urgent need to address the issue of non-availability of proper information about green finance. In this regard, universities and financial institutions shall suitably collaborate to provide easily accessible and comprehensive information about green financial products through online platforms, workshops, and educational seminars. Ensuring transparency and clarity in communication can help alleviate students' hesitancy and foster their interest in exploring green investment options.
- Augmenting students' understanding of green finance concepts and focusing on misconceptions through educational initiatives is crucial. Universities shall integrate green finance topics into their curriculum across disciplines which shall suitably provide practical insights and real-world examples of sustainable investment practices. Encouraging critical thinking and fostering a positive perception of green finance as a viable and impactful investment option can facilitate its adoption.

- Overcoming distrust in the usefulness of green products is paramount for encouraging their adoption. Financial institutions should prioritize transparency and accountability in their green finance offerings, providing evidence of the environmental impact and performance of these products. Establishing third-party certifications or endorsements can also augment credibility and trust among students.
- Mitigating perceived risk factors associated with investing in green financial products necessitates clear communication and education. Financial institutions must provide comprehensive information about the risks and returns of green investments, addressing concerns related to financial performance, market volatility, and regulatory uncertainties. It is, therefore, inferred that offering tailored financial education programs and resources can empower students to make informed decisions and navigate potential risks effectively.
- Continuous monitoring and evaluation of green finance awareness and adoption initiatives are crucial for assessing their effectiveness and ascertaining areas for improvement. It is, therefore, outlined that employing feedback mechanisms and conducting regular surveys can suitably gauge students' perceptions, behaviors, and preferences regarding green finance.

7. Conclusion and scope for future research

This research provides valuable insights into the awareness, comprehension, and adoption of green finance among university students. It recognizes significant barriers and enablers influencing students' decisions regarding green financial products and underlines the prominence of addressing these factors to endorse sustainable investment practices. The findings unveil a promising green conscience among students, with a willingness to explore green finance options despite existing barriers such as information gaps and perceived risks. Additionally, the study emphasizes the role of knowledge, perception, and trust in shaping students' attitudes towards green finance, suggesting avenues for educational interventions and communication strategies to augment awareness and encourage adoption.

The study sheds light on several essential aspects of green finance awareness and adoption among university students, there are several avenues for future research to explore in greater depth. It is therefore, suggested, that future research focusing on comparing the awareness and adoption of green finance among university students across different countries, regions, or educational institutions could help identify cultural, institutional, and policy factors influencing students' attitudes and behaviours towards sustainable finance. Additionally, various qualitative research methods such as interviews or focus groups can be suitably employed to explore students' perceptions, motivations, and decision-making processes regarding green finance in greater depth, providing rich insights into the underlying factors shaping their attitudes and behaviours. Moreover, the role of technological innovations such as fintech platforms, digital learning tools, and social media can be adequately explored to find out their role in promoting green finance awareness and engagement among university students and assessing their effectiveness in reaching and educating diverse student demographics. It is also

suggested that an adequate behavioral economics framework can be employed to comprehend the behavioural biases and decision- making heuristics influencing students' investment choices.

8. References

Akomea-Frimpong, I., Adeabah, D., Ofori, D., & Tenakwah, E. J. (2022). A review of studies on green finance of banks, research gaps and future directions. *Journal of Sustainable Finance & Investment*, 12(4), 1241-1264.

Bieliński, T., & Mosionek-Schweda, M. (2018). Green bonds as a financial instrument for environmental projects funding. *Unia Europejska*. pl, 248(1), 13-21.

Birzhanova, A. B., Nurgaliyeva, A. M., & Nurmagambetova, A. Z. (2023). Unveiling green finance in Kazakhstan: a study on awareness and barriers to sustainable investments. *Journal of Economic Research & Business Administration*, 145(3), 148-158.

Brown, J., Buchholz, W., Feng, Z., Hayes, R., James, A., Jansen, O., ... & Zhang, X. (2019). Global green finance: An overview. *Climate Bonds Initiative & Deutsche Bank*, 1(2), 15-34

Brown, J., Jones, T., & Lee, Y. (2020). Greening the future: The role of universities in fostering green finance education. *Journal of Sustainable Finance & Investment*, 10(2), 187-202.

Chen, C., Chong, K. M., Tan, T. H., & Wang, H. (2023). Mechanism of Green Finance Awareness on Sustainable Competitiveness of Enterprises. *Journal of ASIAN Behavioural Studies*, 8(25), 39-65.

Chopra, T., & Kakrecha, P. (2015). Green finance: The practices of banks and perspective of customers. *International Journal Of Research–Granthaalayah*. Chopra et. al, 3(5).

Fawehinmi, O., Yusliza, M. Y., Mohamad, Z., Noor Faezah, J., & Muhammad, Z. (2020). Assessing the green behaviour of academics: The role of green human resource management and environmental knowledge. *International Journal of Manpower*, 41(7), 879-900.

Gilchrist, D., Yu, J., & Zhong, R. (2021). The limits of green finance: A survey of literature in the context of green bonds and green loans. *Sustainability*, 13(2), 478.

Green, L., Wilson, M., & Bates, A. (2019). Youth activism and the future of sustainable finance: A case study of student-led divestment campaigns. *Business & Society*, 58(7), 2243-2272.

Gupta, S., & Singh, A. (2020). Green finance in India: The evolving landscape and policy imperatives. *Journal of*

Financial Economic Policy, 12(2), 315-334.

Huang, S., & Huang, X. (2023). How green bankers promote behavioral integration of green investment and financing teams—Evidence from Chinese Commercial Banks. *Sustainability*, 15(9), 7350.

Jaura, H. K. (2023). Challenges of implementing green finance initiatives in India: A quantitative investigation. *European Economic Letters (EEL)*, 13(5), 1036-1040.

Jones, P., & Clark, D. E. (2020). Financing a sustainable future: The role of green bonds. OECD Publishing, 1(1), 35-42

Koirala, B. P., Araghi, Y., Kroesen, M., Ghorbani, A., Hakvoort, R. A., & Herder, P. M. (2018). Trust, awareness, and independence: Insights from a socio-psychological factor analysis of citizen knowledge and participation in community energy systems. *Energy research & social science*, 38, 33-40.

Kumar, S., Singh, Y., & Prakash, A. (2020). Capacity building and awareness creation for green finance in India. *Journal of Cleaner Production*, 272, 122762.

Latulippe, N., & Klenk, N. (2020). Making room and moving over: knowledge co-production, Indigenous knowledge sovereignty and the politics of global environmental change decision-making. *Current opinion in environmental sustainability*, 42, 7-14.

Maulida, S., & Hakim, B. A. (2022). Twitter Sentiment Analysis on Green Finance. *Accounting and Sustainability*, 1(1).

Meo, M. S., & Abd Karim, M. Z. (2022). The role of green finance in reducing CO2 emissions: An empirical analysis. *Borsa Istanbul Review*, 22(1), 169-178.

Mngumi, F., Shaorong, S., Shair, F., & Waqas, M. (2022). Does green finance mitigate the effects of climate variability: role of renewable energy investment and infrastructure. *Environmental Science and Pollution Research*, 29(39), 59287-59299.

Msengi, I., Doe, R., Wilson, T., Fowler, D., Wigginton, C., Olorunyomi, S., ... & Morel, R. (2019). Assessment of knowledge and awareness of “sustainability” initiatives among college students. *Renewable Energy and Environmental Sustainability*, 4, 6.

Nguyen, T. H., & Nguyen, B. M. D. (2018). Is the “first-generation student” term useful for understanding inequality? The role of intersectionality in illuminating the implications of an accepted—yet unchallenged—term. *Review of Research in Education*, 42(1), 146-176.

Oyegunle, A., & Weber, O. (2015). Development of sustainability and green banking regulations: existing codes and practices.

Patel, M., & Desai, P. (2021). Green loan financing for renewable energy projects in India. *International Journal of Renewable Energy Research*, 11(3), 547-552.

Rana, S. (2022). Consumer Awareness and Perception Towards Green Marketing: An Empirical Study In Bangalore City. *Journal of Positive School Psychology* <http://journalppw.com>, 6(5), 4240-4245.

chäfer, H. (2017). Green Finance and the German banking system. Available at SSRN 2959931.

Schoenmaker, D., & Schramade, W. (2018). *Principles of sustainable finance*. Oxford University Press.

Sharma, S., Garg, A., & Rastogi, R. (2019). Public-private partnerships for mobilizing green finance in India. *Ecological Economics*, 166, 106382.

Singh, V., Mishra, N., & Taghizadeh-Hesary, F. (2022). Mapping the current practices and patterns of green digital finance in India and the way forward. In *Green Digital Finance and Sustainable Development Goals* (pp. 223-242). Singapore: Springer Nature Singapore.

Smith, A., & Johnson, C. (2018). Empowering the next generation: Student engagement in green finance education and practice. *International Journal of Green Finance*, 12(1), 78-94.

Smith, A., & Millar, R. (2018). *Green finance: The missing piece of the climate change puzzle*. Routledge.

Soundarrajan, P., & Vivek, N. (2016). Green finance for sustainable green economic growth in India. *Agricultural Economics/Zemědělská Ekonomika*, 62(1).

Turrini, T., Dörler, D., Richter, A., Heigl, F., & Bonn, A. (2018). The threefold potential of environmental citizen science-Generating knowledge, creating learning opportunities and enabling civic participation. *Biological Conservation*, 225, 176-186.

Verma, A., & Agarwal, R. (2020, April). A study of green bond market in India: A critical review. In *IOP Conference Series: Materials Science and Engineering* (Vol. 804, No. 1, p. 012052). IOP Publishing.

Volz, U. (2017). On the role of central banks in enhancing green finance.

Volz, U. (2018). Fostering green finance for sustainable development in Asia. In *Routledge handbook of banking*

and finance in Asia (pp. 488-504). Routledge. Wang, Z., Shahid, M. S., Binh An, N., Shahzad, M., & Abdul-Samad, Z. (2022). Does green finance facilitate firms in achieving corporate social responsibility goals?. *Economic research- Ekonomska istraživanja*, 35(1), 5400-5419.

Yanindraputri, P. (2016). Balancing sustainable growth and forest conservation through spatial planning for a green economy in the Heart of Borneo.

Zhang, X., Liu, Y., Bao, J., & Li, H. (2021). Green finance and sustainable development: A review of the literature. *Sustainability*, 13(23), 13240.

Zhang, X., Wang, Z., Zhong, X., Yang, S., & Siddik, A. B. (2022). Do green banking activities improve the banks' environmental performance? The mediating effect of green financing. *Sustainability*, 14(2), 989.

Zheng, G. W., Siddik, A. B., Masukujjaman, M., Fatema, N., & Alam, S. S. (2021). Green finance development in Bangladesh: The role of private commercial banks (PCBs). *Sustainability*, 13(2), 795.

Zhu, W., Zhu, Z., Fang, S., & Pan, W. (2017). Chinese students' awareness of relationship between green finance, environmental protection education and real situation. *Eurasia Journal of Mathematics, Science and Technology Education*, 13(7), 3753-3769.

