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Value creation of green banking technology sustainability: The role of initial trust

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ABSTRACT

This study aims to identify the factors influencing GBT acceptance. Questionnaires were distributed online to users of green banking technology in Indonesia, with 456 respondents. Reducing emissions and utilizing environmentally friendly technologies have been and are still necessary to address the issue of climate change. Green banking technology (GBT) is a banking technology that supports green business. GBT can carry out online banking activities to reduce excessive paper use. The data was analyzed using Partial least squares (PLS). The results show that perceived usefulness (PU) is the strongest predictor for continuously supporting GBT. However, perceived ease of use (PEOU) cannot positively influence technology adoption. The rapid growth of digitalization allows users to become familiar with the technology, so convenience is not the determining factor. Meanwhile, on the aspect of trust and value, it has been proven to be a strong link. This research offers academics and practitioners a perspective on green business practices using GBT. Green banking practices, particularly those focusing on reducing environmental footprints, like transitioning to online banking, should be further explored and promoted. This study also recommends optimizing the functionality of green banking technology to suit user needs. In addition, the level of trust is also a serious concern because it can determine whether someone will continue or leave GBT.

Contribution/Originality: This research makes a significant contribution by integrating the TAM model with the influencing factors of green banking technology, trust, value, and satisfaction. The model framework has proven to be a factor that can strengthen technology adoption, including underscoring the important role of utility and trust in technology adoption.

1. INTRODUCTION

Indonesia is the most significant contributor to the concentration of greenhouse gas (GHG) emissions, reaching 2.71%, or 1,074.19 million tons, of global emissions until 2018 (Crippa et al., 2021). Thus causing severe environmental damage such as global warming, decreasing water quality, disasters, and biodiversity loss (Ali, Sloane, & Strezov, 2018; Ossa-Moreno et al., 2018). These conditions also threaten the sustainability of the environment in various sectors, such as the economy, food, and health. The increase in GHG comes from power

fossils, industry, transportation, and various other sectors (Crippa et al., 2021). According to (Kurowski, Rutecka-Góra, & Smaga, 2022), society is increasingly feeling the effects of the current climate change both physically (for example, increasing average temperatures) and financially (for example, costs to improve the climate and towards a green economy). These conditions require profit and non-profit organizations to transform their business and reduce the use of businesses operations that can significantly cause climate change (Agung, Muhammad, & Musyaffi, 2023; Carvalho, 2017).

Moran et al. (2020) stated that a change in people's behavior towards buying environmentally friendly goods could reduce the carbon footprint by as much as 25%. Indonesia has been committed to addressing climate change since 2009 to reduce greenhouse gas emissions in November 2016, with a target setting unconditional by 29% and conditional targets of up to 41% compared to business as usual (BAU) in 2030 (Directorate General of Climate Change of the Ministry of Environment and Forestry (DGCC MoEF) of the Republic of Indonesia, 2021). This policy allows the company to change its business model based on green economics, likewise with banking, which has a role in facilitating environmentally friendly adoption and mitigating the risk of climate change by supporting recovery and transferring funds to industrial sectors that support green business (Park & Kim, 2020).

Traditional banking contributes quite a lot of carbon emissions through paper and electricity consumption (Rehman et al., 2021). So digitalization and environmentalism have put pressure on financial institutions, especially banks, to adopt green businesses (Julia, Kassim, Julia, & Kassim, 2020). Pressure on the banking industry is considered a force that drives and spurs continuous economic growth (Bukhari, Hashim, & Amran, 2022), which can encourage economic growth (Ozili & Opene, 2021), so that the concept of Green Banking Technology (GBT) refers to improving paperless-based banking technology in banking financial operations (Bouteraa, Raja Hisham, & Zainol, 2023; Rehman et al., 2021).

One way to reduce the GHG problem is to switch to environmentally friendly technologies. Research conducted by carbon footprint management experts found that 75% of mobile banking respondents wanted to obtain information on the impact of carbon on their savings (Realwire, 2022). This shows the great interest of mobile banking users in the role of banks in implementing GBT. In addition, developing countries need to catch up in digitalization and environmental sustainability (Bukhari et al., 2022). However, one of the factors hindering users from accepting green banking technology is the need for more banking transparency in its efforts to reduce carbon footprints (Realwire, 2022). This results in reduced user trust in green banking technology features and services.

The implementation of green business banking by banks today can significantly reduce the use of GHG. The indication is a reduction in transactions through communication technology, thereby drastically reducing paper use. In addition, green business banking also reduces the opening of banking branches in various regions because of its nature, which allows for transactions without a branch office. One of the technologies is online banking through digital banking, which allows users to make transactions online and quickly, so they do not need a branch office to make transactions. Online banking can make bank customers more productive by supporting work in their daily activities. Zheng, Siddik, Masukujjaman, Fatema, and Alam (2021) revealed that green finance is crucial to banking sustainability to grow an eco-friendly economy and impact the surrounding environment. The advantage of online banking is that it can increase user satisfaction, especially regarding waiting time reduction (Kareem, Mostafa, Hashim, & El-Bakry, 2022; Wu, Lu, & Ge, 2013).

Information technology that is put to good use can improve user performance and quality decisions (Müller, Nohe, Reiners, Becker, & Hertel, 2023; Musyaffi, Oli, & Afriadi, 2023; Petter, DeLone, & McLean, 2008; Septiawan, Musyaffi, Quinn, & Ratifah, 2023). So it is a natural thing when the growth of online banking usage is relatively rapid. However, many users still use non-digital payments that depend on automated teller machines (ATMs), 51.1%, and conventional accounts, 38.1% (Pahlevi, 2022). So adjustments are needed for banks to focus on green banking technology services.

Based on Nnaji, Okpala, Awolusi, and Gambatese (2023), 75% of the research conducted since 2015 recommends technology acceptance model (TAM) as a model for the technology acceptance. In adopting

technology using TAM, the PEOU and PU constructs are crucial elements in making users continue to use technology (Alalwan, Baabdullah, Rana, Tamilmani, & Dwivedi, 2018; Davis, 1989; Gokmenoglu & Hesami, 2020; Hanif & Lallie, 2021). So paying attention to these two elements is essential to making users switch to green banking technology.

The issue of climate change is very urgent and needs to be addressed immediately, so this research is essential. Because the climate impact is tremendous for the continuity of human life, meanwhile, previous researchers recommended other research on green banking technology in the Gulf Cooperation Council or Developing-8 (D-8), including Indonesia, because it has indicators of similarity from previous researchers (Bouteraa et al., 2023). Therefore, the purpose of this study is to explore the acceptance of the use of green banking technology through the technology acceptance model extension approach. So that companies that adopt green business technology can be more concerned about meeting user needs based on these acceptance factors.

2. LITERATURE REVIEW

2.1. Green Banking Technology

Green banking technology refers to the technology used in banking to promote a sustainable green economy. Green banking ideally refers to banking efforts supporting green businesses, such as green operations, management practices, finance, marketing, disclosure, and information technology (Shaumya & Arulrajah, 2017). The ultimate goal is to reduce the carbon footprint and external carbon footprint (Bahl, 2012; Shaumya & Arulrajah, 2017) by reducing paper use, wasting energy, going online, and using solar and wind energy (Chaurasia, 2019). Green banking aims to offer innovative products that promote environmentally friendly banking operations, utilizing responsibly owned resources (Bukhari, Hashim, & Amran, 2021).

In addition, green banking technology also refers to a sustainable approach that facilitates banking customers to deliver services and transactions effectively and efficiently through the role of innovative technology (Bouteraa et al., 2023; Ibe-enwo, Igbudu, Garanti, & Popoola, 2019; Zheng et al., 2021). Meanwhile, other researchers believe that GBT can provide savings and loan services supported by online-based, environmentally friendly technology (Bouteraa et al., 2023; Javeria, Siddiqui, Rasheed, & Nawaz, 2019). In this study, green banking technology refers to green business practices carried out by banks through environmentally friendly and paperless-based technology services in every banking transaction.

An example is the implementation of digital banking, which can carry out banking activities without going through branch offices, such as opening accounts, daily transactions, payments, and withdrawing money. In addition, other technologies that constitute green banking practices are mobile and internet banking because they have almost the same capabilities as digital banking in general. According to Iqbal, Nisha, and Raza (2019), these technology services support green businesses by significantly reducing paper use.

2.2. Perceived Ease of use (PEOU)

PEOU shows user satisfaction in viewing goods and services (AlMajali, AlSokkar, Alshinwan, & Shehadeh, 2023). Users tend to use technology that supports their work, especially for ease of use that suits their needs. Various researchers have found that PEOU influences the intention to use green banking technology (INUGBT) (Franque, Oliveira, & Tam, 2021; Gokmenoglu & Hesami, 2020; Hanif & Lallie, 2021). Convenience is a crucial factor in increasing the continuous use of GBT. In addition, when the menu on green banking technology makes it easier for users, the level of user satisfaction tends to increase (Athmay, Fantazy, & Kumar, 2016; Bossman & Agyei, 2022). In addition, other research also found that PEOU became favorable and substantial to the use of technology (Tan, Ooi, Chong, & Hew, 2014). Therefore, PEOU is essential for increasing satisfaction (Zhong & Moon, 2022).

H_1: PEOU has a positive effect on the INUGBT.

H_2: PEOU has a positive effect on US.

2.3. Perceived Value (PV)

When a product or service has added value that suits the user, it will increase the adoption of these products and services. In the perspective of GBT, perceived value is indicated by the benefits possessed by the technology, for example, supporting climate change, increasing the speed of use, and flexibility. Individuals who think that technology is valuable have a greater tendency to believe in it (Ashrafi & Easmin, 2023). This fact is supported by previous literature stating that perceived value has a strong relationship with perceived trust in green banking technology (TGBT) (Roh, Yang, Xiao, & Park, 2022; Uzir et al., 2021). The impact of having considerable value will increase technology adoption. Previous literature shows a strong impact between PV and INUGBT. Previous literature shows that there is a positive effect between PV and INUGBT (Ashrafi & Easmin, 2023; Jebarajakirthy & Shankar, 2021; Karjaluoto, Shaikh, Saarijärvi, & Saraniemi, 2019; Zhong & Moon, 2022).

H_3: PV has a positive effect on INUGBT.

H_4. PV has a positive effect on TGBT.

2.4. Perceived Usefulness (PU)

PU indicates the level of usage that will increase user performance. Therefore, we can further improve PU when the technology has sufficient functionality. In addition, PU is a strong and positive predictor of influencing INUGBT (Kampa, 2023). Users will adopt technology when it dramatically increases productivity (Morosan, 2011). Users are becoming increasingly productive, particularly in transactions, demonstrating increased satisfaction (Wu & Cheng, 2018) and consistent usage (Chiu, Chang, Cheng, & Fang, 2009). Other researchers also support this statement, where PU significantly impacts the US (Franque et al., 2021; Zhong & Moon, 2022). Besides increasing satisfaction, PU can also trigger someone to continue using technology. The results of previous studies have proven that PU is a vital element in determining a person's acceptance of technology (Ali, Parveen, Yaacob, & Zaini, 2021; Franque et al., 2021; Hanif & Lallie, 2021).

H_5: PU has a positive effect on INUGBT.

H_6: PU has a positive effect on US.

2.5. Trust (TGBT)

Trust is a user's belief that service providers can facilitate user needs by offering what is explicitly or implicitly offered (Akthar, Nayak, & Pai 2023; Osman & Sentosa, 2013). Every organization must maintain trust because it can increase the added practical value of the company's sustainability. In information technology, trust can be a bridge to improve performance and user satisfaction (Tam, Loureiro, & Oliveira, 2020; Thielsch & Hirschfeld, 2019). Trust can give someone confidence that the technology used is following their goals, so it can directly increase the adoption of this technology (Rafferty & Fajar, 2022). So the greater a person's trust, the higher the adoption rate (Ashrafi & Easmin, 2023; Türker, Altay, & Okumuş, 2022). Previous research has also revealed the importance of trust in increasing continuous usage behavior (Almuraqab & Jasimuddin, 2017; Malchenko, 2020; Stojanović, Radenković, Popović, Mitrović, & Bogdanović, 2023).

H_7: TGBT has a positive effect on INUGBT.

2.6. User Satisfaction (US)

US is essential for measuring user feedback on technology use in payment, purchase, and product receipt (Wixom & Todd, 2005; Yoon & Kim, 2023). According to Maslow's theory, a person's standard of living are quality of life, which continuously rise to become a standard of user satisfaction, can indicate their needs and desires (Chen, Du, & Wang, 2023). The higher a person's satisfaction when he feels the benefits of using technology, the higher a person's tendency to adopt technology. Previous literature proves a significant relationship between US and INUGBT (Alamri, 2019; Chen et al., 2022; Zhong & Moon, 2022).

H_8: US has a positive effect on INUGBT.

3. METHODOLOGY

3.1. Research Design

This study uses online questionnaires to evaluate the adoption of GBT users in Indonesia. Respondents must have used green banking technology such as digital payments, online banking, mobile banking, or Internet banking. The questionnaire consists of two parts. First, it contains demographic profiles such as occupation, age, gender, and educational background. At the same time, the second part consists of questions. This research question uses a Likert scale of 1 to 5, where the answer "strongly disagree" is worth one and the answer "strongly agree" is worth 5. The number of samples that have been obtained is 456. The number of sample size recommendations in the SEM method should be at least 375 (Kline, 2023) so that samples in this study have fulfilled the recommended number.

3.2. Measurement

We prepared this research questionnaire using the TAM development model from previous researchers. The primary constructs in TAM, namely PEOU and PU, each have 4 question items adapted from various previous studies (Venkatesh & Bala, 2008). The PV and TGBT construct comprised four questions (Kim, Chan, & Gupta, 2007). The US construct consists of 4 questions adapted from research (Kim, Ferrin, & Rao, 2008). The INUGBT construct comes from several previous studies (Singh & Srivastava, 2018).

3.3. Data Analysis

We conducted the discussion on data analysis in several stages. First, the researcher uses descriptive analysis to analyze the scattered data. Second, researchers used Partial Least Square (PLS) and Structural equation model (SEM) to analyze the relationship between variables. Researchers used the SmartPLS 4.0 tool to evaluate validity and reliability, path coefficients, and hypothesis evaluation. The first stage in PLS-SEM is assessing the validity and reliability of the data through a measurement model. We can evaluate the measurement model using outer loading, average variance extracted (AVE) to assess each item's validity, and Cronbach alpha (CA) and composite reliability (CR) to assess the reliability of data in each construct item (Hair & Alamer, 2022). In addition, discriminant validity testing was carried out through cross-loading, heterotrait-heteromethod (HTMT), and Fornell-larcker to ensure no collinearity problems. The second stage is evaluating the structural model to predict the model capability built by researchers through coefficient determination (R2 value) and the sample predictive power (Hair & Alamer, 2022), and finally, testing the path coefficient and the hypothesis through a p-value comparison.

4. RESULT

4.1. Measurement Model

Table 2 shows the PLS-SEM output based on Smart PLS 4.0. you can validate the data by comparing the outer loading and AVE values. If the outer loading value is more than 0.7, then the data for each item tends to be good (Hair & Alamer, 2022). INUGBT3 had the most significant outer loading values in this study, at 0.875, while PU1 had the smallest at 0.711. The PEOU variable has an outer loading value of 0.733 – 0.767. Then the PV construct has an outer loading that ranges from 0.706 – 0.790. Then the PU construct has an outer loading value that ranges from 0.711-0.765. The US construct has an outer loading range of 0.731-0.824. Moreover, the TGBT construct has outer loading in the value range of 0.761 – 0.871. Finally, the INUGBT construct has the lowest outer loading value of 0.755 and the highest value of 0.875. This ensures that every item in all these constructs meets the criteria of validity. The AVE value (> 0.5) also indicates the validity of the data from each constructs (Hair & Alamer, 2022). The AVE value ranges from 0.539 (PEOU) to the largest, namely 0.707 (INUGBT). The evaluation of AVE and outer loading indicates that this study meets the established standard criteria.

Table 1. Validity and reliability.

Construct	CA	CR	AVE	Item	Outer loading	VIF
Perceived ease of use (PEOU)	0.715	0.823	0.539	PEOU1	0.767ap	1.399
				PEOU2	0.759	1.409
				PEOU3	0.753	1.388
				PEOU4	0.733	1.253
Perceived value (PV)	0.730	0.831	0.551	PV1	0.722	1.339
				PV2	0.749	1.529
				PV3	0.706	1.347
				PV4	0.790	1.489
Perceived usefulness (PU)	0.722	0.826	0.543	PU1	0.711	1.376
				PU2	0.728	1.419
				PU3	0.765	1.413
				PU4	0.762	1.339
User satisfaction (US)	0.785	0.861	0.608	US1	0.731	1.517
				US2	0.824	1.719
				US3	0.787	1.643
				US4	0.774	1.530
Trust in green banking technology (TGBT)	0.838	0.892	0.674	TGBT1	0.791	1.778
				TGBT2	0.871	2.325
				TGBT3	0.856	2.057
				TGBT4	0.761	1.554
Intention to use green banking technology (INUGBT)	0.860	0.906	0.707	INUGBT1	0.874	2.418
				INUGBT2	0.853	2.274
				INUGBT3	0.875	2.522
				INUGBT4	0.755	1.517

After ensuring data validity, the next stage evaluates reliability through CA and CR with a recommendation value above 0.7 (Hair & Alamer, 2022). The CA value for each construct ranges between 0.715 to 0.860l, while the CR value for each construct has the smallest value of 0.823 and the most significant value of 0.860. CA and CR have values above 0.7, meaning all the study's constructs are reliable. The next step is to ensure that no collinearity occurs for each item. The trick is to evaluate the VIF. The recommended VIF value should be at most five, and strive for a VIF number below 3 (Hair & Alamer, 2022). Based on Table 1, the VIF values from the smallest to the largest are 1,253-2,522, so it can be ascertained that each item in this study does not have collinearity. The next step is to ensure that each construct has no other collinearity through HTMT. The HTMT value must be below 0.9 to avoid correlation problems (Henseler, Ringle, & Sarstedt, 2015). Table 1 shows the calculation of HTMT in each construct. The HTMT ratio for each pair has a value below 0.9. Based on the evaluation of HTMT values in the range of 0.424-0.792, there is no collinearity in this study.

Table 2. Discriminant validity (HTMT).

Construct	INUGBT	PEOU	PU	PV	TGBT
PEOU	0.623				
PU	0.720	0.788			
PV	0.527	0.703	0.822		
TGBT	0.733	0.493	0.625	0.424	
US	0.746	0.792	0.730	0.698	0.747

The indicator level correlates with cross-loading, whereas the construct level correlates Fornell Larcker (Hair & Alamer, 2022). The way to calculate the Fornell Larcker is to compare the values of the items between the variables at the top and the variable items below. If the value between the variables is more significant, it can meet the Fornell Larcker criteria. Based on Table 3, the value of INUGBT-INUGBT (0.841) is more significant than INUGBT with other constructs such as PEOU (0.489), PU (0.577), PV (0.422), TGBT (0.710), and US (0.702). Then the PEOU and PEOU constructs (0.734) have a better value than PEOU and other constructs such as PU

(0.642), PV (0.660), TGBT (0.386), and US (0.595). Likewise, the PU and PU constructs (0.737) have a more excellent Fornell Larcker value than the PU and PV constructs (0.607), TGBT (0.498), and US (0.636), likewise, with other constructs such as PV (0.743) and TGBT (0.821), whose values are more significant.

When conducting a cross-loading analysis, it's important to compare the construct with the original item. This value must be better than the construct with items outside the construct. The values of the INUGBT construct in the INUGBT1-INUGBT2 items are 0.874, 0.853, 0.875, and 0.755. This value is greater than the INUGBT construct with other items outside the INUGBT construct. If analyzed more deeply in Table 4, the values of all constructs with the original items in the construct have a higher value, so it can be concluded that this study can meet the cross-loading criteria.

Table 3. Discriminant validity (Fornell Larcker).

	INUGBT	PEOU	PU	PV	TGBT	US
INUGBT	0.841					
PEOU	0.489	0.734				
PU	0.577	0.642	0.737			
PV	0.422	0.660	0.607	0.743		
TGBT	0.710	0.386	0.498	0.339	0.821	
US	0.702	0.595	0.636	0.531	0.609	0.780

Table 4. Discriminant validity (Cross loading).

	INUGBT	PEOU	PU	PV	TGBT	US
INUGBT1	0.874	0.363	0.449	0.322	0.638	0.629
INUGBT2	0.853	0.382	0.469	0.310	0.571	0.555
INUGBT3	0.875	0.413	0.465	0.350	0.644	0.599
INUGBT4	0.755	0.490	0.565	0.441	0.527	0.576
PEOU1	0.382	0.767	0.518	0.501	0.309	0.494
PEOU2	0.368	0.759	0.466	0.566	0.300	0.442
PEOU3	0.381	0.753	0.433	0.441	0.306	0.419
PEOU4	0.297	0.653	0.473	0.428	0.206	0.388
TGBT1	0.548	0.261	0.329	0.245	0.791	0.469
TGBT2	0.586	0.328	0.407	0.318	0.871	0.505
TGBT3	0.629	0.318	0.498	0.310	0.856	0.525
TGBT4	0.562	0.355	0.384	0.233	0.761	0.495
PU1	0.347	0.400	0.691	0.323	0.308	0.357
PU2	0.354	0.446	0.728	0.469	0.320	0.501
PU3	0.420	0.562	0.765	0.486	0.402	0.496
PU4	0.549	0.474	0.762	0.488	0.420	0.503
PV1	0.338	0.478	0.483	0.722	0.284	0.373
PV2	0.252	0.465	0.503	0.749	0.185	0.388
PV3	0.298	0.400	0.346	0.706	0.259	0.375
PV4	0.348	0.599	0.472	0.790	0.263	0.438
US1	0.422	0.460	0.422	0.352	0.403	0.731
US2	0.606	0.515	0.529	0.417	0.510	0.824
US3	0.565	0.415	0.492	0.475	0.557	0.787
US4	0.576	0.466	0.531	0.408	0.422	0.774

4.2. Structural Model

The R square value based on the table on the trust construct is 0.255, or 25.5%. PEOU, PV, and PU influence 25.5% of trust in green banking technology. In contrast, the R2 value in the US construct is 0.464, or 46.4%. This means that if the PEOU and PU constructs are combined, they affect US by 46.4%. Then the value of R2 in the INUGBT construct is 0.633, or 63.3%. PEOU, PV, PU, US, and TGBT have a combined effect of 63.3% on INUGBT. Then, in the structural model evaluation, a test is carried out with cross-validation (Q2) to test the predictive relevance of a theoretical model that has been built (Hair & Alamer, 2022). The Q2 value must be greater

than zero to have satisfactory predictive relevance. Based on Table 5, the Q2 values for all INUGBT (0.332), TGBT (0.238), and US (0.453) variables have a value greater than 0. So the model in this study has high and satisfactory predictions.

Table 5. Structural model analysis with Q2 and R2.

	Q^2	R square
Intention to use green banking technology (INUGBT)	0.332	0.633
Trust in green banking technology (TGBT)	0.238	0.255
User satisfaction (US)	0.453	0.464

4.3. Hypothesis Testing

This study proposes nine hypotheses based on smart PLS 4.0 calculations through the output table. However, there is 1 hypothesis that is not supported, namely the first hypothesis. Based on Table 6, PEOU cannot positively influence INUGBT (P value = 0.251 < 0.10) with a path coefficient of 0.050, or 5%. Based on this evaluation, H4 has a p-value of less than 0.1. So, PV has a significant influence of 42.6% (path = 0.426) on TGBT. The second and sixth hypotheses that affect user satisfaction, namely PEOU and PU, have a p-value below the recommended one, which is below 0.1, so both hypotheses are accepted. At the same time, the hypotheses that affect INUGBT, namely H5, H8, and H9, have a p-value below 0.1. So that all three hypotheses can be accepted.

Table 6. Summary of model paths.

	Path	P values	Decision
H1. PEOU -> INUGBT	0.050	0.251	H1 not supported
H2. PEOU -> US	0.318	0.000	H2 supported
H3. PV -> INUGBT	0.112	0.045	H3 supported
H4. PV -> TGBT	0.426	0.000	H4 supported
H5. PU -> INUGBT	0.123	0.034	H5 supported
H6. PU -> US	0.432	0.000	H6 supported
H7. TGBT -> INUGBT	0.426	0.000	H7 supported
H8. US -> INUGBT	0.341	0.000	H8 supported

5. DISCUSSION

This study indicates an increase in the acceptance of GBT through the roles of trust, value, and utility, as well as ease of use in every aspect. PU is the construct that has the most positive influence on user satisfaction in using green business banking, namely 43.2%. While user satisfaction also significantly impacts increasing user intensity in using green business technology by 34.1%, the more helpful technology is for individuals, the greater the possibility for someone to use it continuously. This fact shows that individuals tend to think that green banking technology can increase the efficiency of financial management to help with daily tasks and work (Bouteraa et al., 2023). Users must be carefully prepared, particularly in the functional aspects of digital banking, to ensure their continued use and sustainability (Gurendrawati et al., 2023). Previous research has shown that the presence of PU can positively increase INUGBT (Gokmenoglu & Hesami, 2020; Ho, Wu, Lee, & Pham, 2020; Johnen, Parlasca, & Mußhoff, 2023; Kumar, Lall, & Mane, 2017; Lim et al., 2023). Users tend to prioritize benefits for themselves to get the job done.

GBT can operate banking transactions more quickly. GBT can also open an account without going through a branch office. Users can also carry out various banking activities without the need to go directly to an ATM or branch office. This functionality fits current conditions and supports green business because it can significantly reduce paper usage. The feature that users like the most is being able to carry out banking activities anywhere using a smartphone flexibly. So there is no need to waste much time and energy compared to going through a bank branch office teller. Mature financial digital literacy can make users more knowledgeable about technology-based

financial products, such as green banking technology (Respati et al., 2023). Prior knowledge regarding the existence of GBT and the benefits that are obtained when using GBT will positively increase the intensity of using the technology. Previous research shows that the benefits of green banking technology can sustainably increase adoption (Baabdullah, 2020; Bouteraa et al., 2023; Chaurasia, 2019). When technology features, and menus positively impact the user, the tendency to adopt continuously increases. So it is essential to pay attention to the features and benefits suitable for users. So that it causes an evaluation of the added value needed so that users can consistently use green banking technology.

Trust can positively influence on the adoption of GBT by 42.6%. Users believe that environmental issues have become very important to pay attention to, so the selection of banking technology is very high. Trust is vital to user satisfaction (Tam et al., 2020; Thielsch & Hirschfeld, 2019). Trust instills confidence in the technology, thereby boosting its adoption (Rafferty & Fajar, 2022). Trust is the second largest component after the benefits of green banking technology. So it is not surprising that many previous researchers supported this study, where trust can positively provide a significant increase in one's technology adoption (Almuraqab & Jasimuddin, 2017; Ashrafi & Easmin, 2023; Malchenko, 2020; Stojanović et al., 2023; Türker et al., 2022).

While the convenience factor (PEOU) did not have a positive impact on the INUGBT, this fact illustrates that customers no longer only view banking on the convenience value of green banking; however, with higher demands that can help them in their daily work. This is understandable given the current expectation of digitization and the familiarity of most users with the technology. Various other research results show that PEOU does not significantly impact INUGBT (Cheng & Huang, 2013; Rafferty & Fajar, 2022; Yan, Tan, Loh, Hew, & Ooi, 2021). Users who have high trust in green banking technology tend to be satisfied with existing technology so that they can increase their desire to use it continuously. This study also provides significant facts regarding the impact of trust on INUGBT by 42.6%. Users believe that banks that apply green banking practices can be trusted in terms of transparency and management. Other researchers have proven that trust in technology can increase satisfaction (Müller et al., 2023; Thielsch & Hirschfeld, 2019). When significant obstacles occur when using technology, a person's tendency to adopt is lower (Musyaffi et al., 2022). Therefore, it is necessary to minimize threats from technology by increasing features and convenience suitable for users. Another important finding of this study is that user satisfaction is one of the contributors to a high relationship of 34.1%. The existence of green banking technology can make users feel satisfied and not worry that the product or technology used can harm the environment and the future. So that users adopt green banking technology on a larger scale. When someone's satisfaction lasts a long time, the sustainability of the technology can last quite a long time. So it is okay if much previous literature found the importance of user satisfaction on INUGBT (Alamri, 2019; Chen et al., 2022; Zhong & Moon, 2022).

6. CONCLUSION AND RECOMMENDATIONS

This study integrates the TAM model with constructs that immediately impact green banking technology issues: trust, value, and satisfaction. Eight hypotheses are proposed, but only one does not have a significant effect, namely PEOU, and INUGBT. At present, users have become accustomed to utilizing technology. In addition, the factors that have the most significant influence are PU and INUGBT. Even though banks have implemented green banking technology, users still need features and functionalities that can be useful and support their daily activities. Even though it is based on trust, it also has the second most significant impact; users still need functionality most from technology services. In addition, the values carried out by green banking technology practices can impact adopting the technology itself. It can be an added value for the banking industry to be able to compete with other organizations.

This study makes a significant contribution to practitioners and academics regarding the acceptance of green business technology. First, the researcher explores the five main factors influencing green banking technology adoption. Second, researchers developed the TAM model on aspects of GBT, which is proven to provide a suitable

model for increasing acceptance of the adoption of GBT. Based on the analysis using PLS, this research model has medium predictive power, so it can be explained accurately based on the sample and several tests through PLS on the aspects of green business technology adoption. Based on practical contributions, this research encourages practitioners in green banking to see and consider green business improvements from bank customers and the banking industry. Considering that the banking industry can significantly impact the country's economy, the success of accepting green banking technology can reflect the success of green business in general. This study offers a robust framework for enhancing the adoption of green business technology, enabling the development of optimal policies and strategies to enhance green business sustainability. Meanwhile, based on the user's point of view, utility and trust factors are the most considered so that banks can focus on developing needed features and menus and maintaining trust through transparency and continuous implementation of green business.

This researcher only researches one of the green banking practices to reduce the impact of climate change, namely by reducing buildings that are not environmentally friendly and using paper through online banking technology. However, there are still other aspects that require further investigation. So for further research, the authors recommend adding or concentrating on other aspects of green banking, such as green finance, loans, operations, management practices, marketing, and disclosure. In addition, this study also only uses a questionnaire as a tool to prove the research hypothesis. So that a qualitative study of the behavior of using green banking technology can be carried out to explore in depth the acceptance of green banking, other researchers can also map technology readiness or innovation resistance from users on aspects of customers and companies in the use of green banking technology, so that it will be known more about how green business technology practices to increase sustainability and a green environment.

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